

STOUT STATE UNIVERSITY
MENOMONIE, WISCONSIN
REGULAR SESSION BULLETIN

1966-1968

STOUT STATE UNIVERSITY

Undergraduate Bulletin

Regular Sessions-1966-1968

THE SCHOOL OF HOME ECONOMICS
THE SCHOOL OF APPLIED SCIENCE AND TECHNOLOGY
THE SCHOOL OF LIBERAL STUDIES



Volume LIV

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ACCREDITATION

The undergraduate and graduate programs of Stout State University
are fully accredited by:

North Central Association of Colleges and Secondary Schools
National Council for Accreditation of Teacher Education

MEMBERSHIPS

Membership is maintained in the following organizations:

American Association of Colleges for Teacher Education
American Association of Collegiate Registrars and Admission Officers
American Association of School Administrators
American Council on Education
American Health Association
American Society for Engineering Education
Association of State Colleges and Universities
Association for Student Teaching
College and University Personnel Association
Educational Film Library Association, Inc.
Lithographic Technical Foundation, Inc.
Midwest College Placement Association
Midwest Conference on Graduate Study and Research
National Association of Intercollegiate Athletics
National Commission on Accrediting
University Film Producers Association
Wisconsin Association of Collegiate Registrars and Admission Officers
Wisconsin Federation of Music Clubs
Wisconsin State Athletic Conference
Women graduates of Stout State University are eligible for membership
in the American Association of University Women.

DIRECTORY FOR CORRESPONDENCE

Administration, policy	The President
Admissions, evaluation of transferred credits	The Admissions Examiner
Registration	The Assistant Registrar
Alumni affairs	The Alumni Secretary
Business affairs and arrangements	The Director of Business Affairs
Counseling services for prospective students	The Dean of Student Services
Employment, student part-time	The Financial Aids Counselor
Graduate Program	The Dean of Graduate Studies
Home Economics	The Dean, School of Home Economics
Housing for women students	The Dean of Women
Housing for men and married students	The Director of Men's Housing
Industrial Education and Industrial Technology	The Dean, School of Applied Science and Technology
Instruction	The Dean of Instruction
Liberal Studies	The Dean, School of Liberal Studies
Literature, catalog and general announcements	The Dean of Student Services
Placement	The Director of Placement
Professional Teacher Education	The Director of Teacher Education
Scholarships	The Financial Aids Counselor
Transcripts	The Registrar

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UNIVERSITY CALENDAR

REGULAR SESSION 1966-67

Monday, September 5	Labor Day
Tuesday, September 6	Registration for First Semester
Wednesday, September 7	Registration for First Semester
Thursday, September 8	Classes Convene
Friday, November 4	Midsemester, End of First Nine Weeks
Wednesday, November 23	Thanksgiving Vacation
	Begins at 1:30 p.m.
Monday, November 28	Classes Resume
Friday, December 16	Christmas Vacation Begins at 1:30 p.m.
Tuesday, January 3, 1967	Classes Resume
Thursday, January 19	Final Examinations
Friday, January 20	Final Examinations
Monday, January 23	Final Examinations
Tuesday, January 24	Final Examinations
Wednesday, January 25	First Semester Ends
Wednesday, January 25	Commencement
Thursday, January 26	Registration for Second Semester
Friday, January 27	Registration for Second Semester
Monday, January 30	Classes Convene
Friday, March 24	Midsemester, End of Third Nine Weeks
Friday, March 24	Spring Vacation Begins at 11:30 a.m.
Monday, April 3	Classes Resume
Friday, May 26	Final Examinations
Monday, May 29	Final Examinations
Wednesday, May 31	Final Examinations
Thursday, June 1	Final Examinations
Friday, June 2	End of College Year
Saturday, June 3	Commencement

SUMMER SESSION 1967

Monday, June 5	Pre-session begins
Friday, June 16	Pre-session ends
Monday, June 19	Summer session begins
Friday, July 14	End of First Four Weeks
Monday, July 17	Beginning of Second Four Weeks
Wednesday, August 9	Commencement
Friday, August 11	End of Summer Session
Monday, August 14	Post-session begins
Friday, August 25	Post-session ends

1968

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REGULAR SESSION 1967-68

Monday, September 4	Labor Day
Tuesday, September 5	Registration for First Semester
Wednesday, September 6	Registration for First Semester
Thursday, September 7	Classes Convene
Friday, November 3	Midsemester, End of First Nine Weeks
Wednesday, November 22	Thanksgiving Vacation begins at 1:30 p.m.
Monday, November 27	Classes Resume
Friday, December 22	Christmas Vacation begins at 1:30 p.m.
Monday, January 8, 1968	Classes Resume
Thursday, January 18	Final Examinations
Friday, January 19	Final Examinations
Monday, January 22	Final Examinations
Tuesday, January 23	Final Examinations
Wednesday, January 24	First Semester Ends
Wednesday, January 24	Commencement
Thursday, January 25	Registration for Second Semester
Friday, January 26	Registration for Second Semester
Monday, January 29	Classes Convene
Friday, March 22	Midsemester, End of Third Nine Weeks
Friday, April 12	Spring Vacation Begins at 11:30 a.m.
Monday, April 22	Classes Resume
Friday, May 24	Final Examinations
Saturday, May 25	Final Examinations
Monday, May 27	Final Examinations
Tuesday, May 28	Final Examinations
Wednesday, May 29	Final Examinations
Friday, May 31	End of College Year
Friday, May 31	Commencement

SUMMER SESSION 1968

Monday, June 3	Pre-session begins
Friday, June 14	Pre-session ends
Monday, June 17	Summer Session begins
Friday, July 12	End of First Four Weeks
Monday, July 15	Beginning of Second Four Weeks
Wednesday, August 7	Commencement
Friday, August 9	End of Summer Session
Monday, August 12	Post-session begins
Friday, August 23	Post-session ends

BOARD OF REGENTS WISCONSIN STATE COLLEGES

(as of July, 1965)

Five Year Term Expires Feb. 1

William D. McIntyre, Eau Claire, President	1968
Eugene W. Murphy, La Crosse, Vice President	1968
Stephen Ambrose, Whitewater	1967
Donald E. Bonk, Chilton	1966
Norman L. Christianson, Roberts	1969
Charles F. Dahl, Viroqua	1967
John J. Dixon, Appleton	1969
Elizabeth Hawkes, Washburn	1966
W. Roy Kopp, Platteville	1970
Milton Neshek, Elkhorn	1970
Robert L. Pierce, Menomonie	1970
John C. Thomson, Stevens Point	1965
Eugene R. McPhee, Madison, Secretary and Director of Wisconsin State Universities.	
Angus B. Rothwell, Madison, State Superintendent of Public Instruction (ex-officio).	

STATE COORDINATING COMMITTEE FOR HIGHER EDUCATION

(as of July, 1965)

Thomas Cheeks	Milwaukee
Arthur DeBardleben	Park Falls
E. J. Fransway	Milwaukee
Jacob F. Friedrick	Milwaukee
Martin Gunnulson	Cambridge
Harvey Kitzman	Milwaukee
W. Roy Kopp	Platteville
William D. McIntyre	Eau Claire
Milton Neshek	Elkhorn
Maurice B. Pasch	Madison
Robert L. Pierce	Menomonie
John D. Rice	Sparta
John Roche	Rio
Leo S. Rodems	Baraboo
Angus B. Rothwell	Madison
Duane Smith	Wisconsin Rapids
Carl E. Steiger	Oshkosh
Arthur E. Wegner	Madison

ADMINISTRATION

WILLIAM J. MICHEELS, PH.D.	President
JOHN A. JARVIS, PH.D.	Dean of Instruction
RALPH G. IVERSON, ED.D.	Dean of Student Services
JOHN FURLONG, PH.D.	Assistant to the President, Director of University Relations, University Development
E. J. SCHOEPP, A.B.	Director of Business Affairs
DWIGHT L. AGNEW, PH.D.	Dean of the School of Liberal Studies
ERICH R. OETTING, PH.D.	Director of Teacher Education
AGNES RONALDSON, ED.D.	Dean of the School of Home Economics
ROBERT SWANSON, PH.D.	Dean of the School of Applied Science and Technology
RAY A. WIGEN, PH.D.	Dean of Graduate Studies
STELLA M. PEDERSEN, M.A.	Dean of Women
MERLE M. PRICE, M.A.	Dean of Men
GLADYS TRULLINGER, M.S.	Assistant Dean of the School of Home Economics
FRANK J. BELISLE, M.A.	Registrar and Director of Placement
GERALD DONLEY, M.S.	Coordinator of School Relations
PAUL R. HOFFMAN, ED.D.	Director of the Counseling Center
DONALD OSEGARD, B.A.	Admissions Examiner
ANGELO ORTENZI, ED.D.	Director of Student Activities and Student Center
ROBERT D. SATHER, M.S.	Financial Aids Counselor
JAMES THOMPSON	Accountant
LLOYD TRENT, M.S.	Coordinator of University Relations
SAMUEL WOOD, M.A.	Assistant Registrar
PHYLLIS D. BENTLEY, M.S.	Librarian
MARY R. DONLEY, M.A.	Assistant Librarian
MRS BEULAH HOWISON, A.B.	Assistant Librarian
JOHN J. JAX, M.S.	Assistant Librarian
MRS. ORA CHASE, R.N.	University Nurse
PHYSICIANS OF THE RED CEDAR CLINIC	University Physicians
MARY KILLIAN, M.A.	Director of Institution Management
HELMUTH ALBRECHT, B.S.	Director of Men's Housing
LOUIS RODEY, M.S.	Superintendent of Buildings and Grounds

UNIVERSITY COMMITTEES

COMMITTEE	CHAIRMAN
Administrative Council	William J. Micheels
Accrediting	John Furlong
Admission and Credits	John A. Jarvis
Alumni Relations	E. Robert Rudiger
Assembly and Lyceum	Norman C. Ziemann
Athletics	Dwight D. Chinnock
Catalog and Publications	Anne Marshall
Commencement	Merle M. Price
Curriculum and Instruction	Ella Jane Meiller
Finance and Audits	E. J. Schoepp
Graduate	Ray A. Wigen
Institutional Studies	Hazel Van Ness
Library	Phyllis D. Bentley
Placement and Follow-Up	Frank J. Belisle
Student Services	Guy Salyer
Undergraduate Fellows	Louis Klitzke

THE FACULTY ASSOCIATION

The Faculty Association was formally organized as a constitutional body in the spring of 1963. The Senate, an elected group within the association, represents and acts for the faculty.

To promote the professional welfare of the college and the faculty, to participate in policy determination for the college, and to carry on the social affairs of the faculty are the purposes of the association.

Officers of the association for 1965-66 are Guy Salyer, Chairman; Jack Sampson, Vice-Chairman; William Owen, Secretary; and Kenneth Erickson, Treasurer.

STOUT DEVELOPMENT ASSOCIATES, INC.

The Stout Development Associates, Inc., a non-profit organization incorporated under the laws of Wisconsin in April, 1962, exists to receive gifts of money and real property to be used for educational purposes at Stout State University. Gifts received are used for loans, scholarships, and other special purposes. The Advisory Committee consists of the following members.

John Furlong Executive Director
Lloyd Trent Coordinator

ALUMNI REPRESENTATIVES

Herbert Anderson, Menomonie	Howard M. Heigl, Racine
James Bailey, Northfield, Minn.	P. T. O'Connor, Chicago, Ill.
Warren Barberg, Eau Claire	Charles A. Pagnucco, Kohler
William Baxter, Minneapolis, Minn.	Henriette Quilling, St. Paul, Minn.
Dorothy Condry, Wauwatosa	Robert Rudiger, Menomonie
Ray Cornwell, Bloomington, Ill.	Alyce Vanek, Menomonie
Kenyon S. Fletcher, Chicago, Ill.	Lloyd Whydotski, Menomonie
Stan L. Fox, Owatonna, Minn.	

PATRON REPRESENTATIVES

J. H. Hickey, Menomonie	James G. Solberg, Menomonie
Ralph Owen, Eau Claire	Mrs. Aleck Tilseth, Menomonie
Robert L. Pierce, Menomonie	

FACULTY REPRESENTATIVES

Herman C. Arneson	M. M. Price
Frank J. Belisle	K. L. Rue
Stella M. Pedersen	G. S. Wall
Robert L. Phelps	Mary K. Williams

EX OFFICIO REPRESENTATIVES

William J. Micheels	President, Stout State University
George Kinsler	President, Stout State Alumni Association
Dwight Davis	President, Stout Student Association
Guy Salyer	Chairman, Stout Faculty Association

STOUT ALUMNI ASSOCIATION

George Kinsler, President	Madison, Wisconsin
Robert Ericson, Vice President	New Richmond, Wisconsin
Lloyd Trent, Director of Alumni Relations	Menomonie, Wisconsin

BOARD OF VISITORS FOR INDUSTRIAL EDUCATION

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Stout State University, B.S.; University of Minnesota, M.A., Ph.D.

DWIGHT L. AGNEW (1947) *Dean of the School of Liberal Studies. Professor*
Park College, A.B.; University of Iowa, A.M., Ph.D.

WILLIAM D. AMTHOR (1960) *Assistant Professor. Industrial Graphics*
Stout State University, B.S., M.S.; University of Minnesota, Texas
Agricultural and Mechanical University, Graduate Study.

HERBERT A. ANDERSON (1948) *Chairman of Department of Industrial
Graphics. Professor*
Stout State University, B.S.; University of Minnesota, M.A.; Uni-
versity of Missouri, Ed.D.

HERMAN C. ARNESON (1945) *Associate Professor. Biology*
Northland College, B.A.; University of Minnesota, M.A., Graduate
Study.

MEHAR C. ARORA (1965) *Instructor. Industrial Technology*
Delhi University, B.A.; Punjab University, M.A.; University of
Minnesota, M.S.

PAUL A. AXELSEN (1956) *Assistant Professor. Printing*
Stout State University, B.S., M.S.; University of Minnesota, Graduate
Studies.

JOAN GAIL BATSON (1965) *Instructor. Clothing and Textiles*
Texas Woman's University, B.S.; University of Tennessee, M.S.

DAVID P. BARNARD (1947) *Chairman of Department of Audio-Visual Edu-
cation. Director of Audio-Visual Center. Professor*
Stout State University, B.S., M.S.; Indiana University, Ed.D.

FRANK J. BELISLE (1955) *Associate Professor. Registrar and Director of
Placement*
Wisconsin State University, River Falls, B.E.; University of Min-
nesota, M.A.

JOHN BENNETT (1965) *Instructor. English*
Columbia University, B.S.; University of Michigan, M.S.

- PHYLLIS D. BENTLEY (1954) *Librarian. Associate Professor*
University of Wisconsin, B.A.; Columbia University, M.S.
- JAMES BJORNERUD (1964) *Instructor. Wood Technics*
Bemidji State College, B.S.; Ohio University, M.Ed.; University of Minnesota, Graduate Study.
- FREDERICK BLAKE (1959) *Instructor. Chemistry*
Ripon College, B.A.; University of Minnesota, M.S.
- GERALD R. BOARDMAN (1965) *Instructor. Mathematics*
Wisconsin State University, Eau Claire, B.S.; Colorado State University, M.S.; Louisiana State University, University of Nebraska, Graduate Study.
- KAREN E. BOE (1964) *Instructor. English*
Augustana College, St. Olaf College, B.A.; University of Wisconsin, M.A.; Northwestern University, University of Wisconsin, Graduate Study.
- DENNIS P. BOLSTAD (1961) *Associate Professor. Education and Psychology*
St. Olaf College, B.A.; Macalaster College, M. Ed.; University of Colorado, Graduate Study.
- TODD A. BOPPEL (1963) *Instructor. Art*
University of Wisconsin, Milwaukee, B.S., M.S.
- LOIS E. A. BYRNS (1960) *Professor. Chairman of Department of English*
University of Wisconsin, B.A., M.A., Ph.D.; Columbia University, George Washington University, Graduate Study.
- CLARA C. CARRISON (1948) *Associate Professor. Food and Nutrition*
Western Illinois University, B.E.; University of Iowa, M.S.; Ohio State University, Pennsylvania State University, University of Tennessee, University of Minnesota, Iowa State University, Graduate Study.
- DWIGHT D. CHINNOCK (1940) *Professor. Industrial Teacher Education*
Wisconsin State University, River Falls, Diploma; Stout State University, B.S.; University of Minnesota, M.A., Graduate Study.
- DONALD F. CLAUSEN (1964) *Associate Professor. Chemistry*
University of Minnesota, M.S., Ph.D.

- DOROTHY F. CLURE (1956) *Assistant Professor. Home Management and Family Economics*
Stephens College, A.A.; Iowa State University, B.S.; University of Chicago, M.A.
- JAMES A. COLLIER (1964) *Instructor. Electricity and Mechanics*
Indiana Institute of Technology, Indiana University, Ball State University, B.S.; Stout State University, M.S.
- HAROLD R. COOKE (1963) *Visiting Professor. Music*
Minneapolis College of Music, B.M.; McPhail College of Music, M.M.E.; University of Minnesota, New England Conservatory of Music, Graduate Study.
- BETTY SNYDER COTTER (1959) *Assistant Professor. Food and Nutrition*
Stout State University, B.S.; University of Michigan, Stout State University, Iowa State University, Kansas State College, M.S.
- E. WAYNE COURTNEY (1962) *Associate Professor. Education and Psychology*
Purdue University, B.S., M.S., Ph.D.
- ANN L. CURTIS (1964) *Assistant Professor. Food and Nutrition*
St. Mary-of-the Woods College, B.S.; Purdue University, M.S.; Indiana State University, Cornell University, Graduate Study.
- MARY FRANCES CUTNAW (1957) *Associate Professor. Speech*
University of Wisconsin, B.S., M.S., Graduate Study.
- WILLIAM A. DAEHLING (1965) *American Industry Project. Instructor*
Stout State University, B.S., M.S.
- JAMES R. DAINES (1963) *Instructor. Electricity and Mechanics*
Stout State University, B.S., M.S.; University of Michigan, University of Houston, Graduate Study.
- MARIAN DEININGER (1959) *Professor. Chairman of Department of Social Science*
University of Minnesota, B.A., M.A., Ph.D.
- DONALD A. DICKMAN (1961) *Assistant Professor. Biology*
Lakeland College, B.S.; South Dakota State University, M.S.; Iowa State University, South Dakota State University, Graduate Study.

- CURTIS H. DITTBRENNER (1965) *Instructor. English*
Concordia College, A.B.; University of Wisconsin, M.A.
- CAROL A. DOBRUNZ (1965) *Instructor. Physical Education*
Wisconsin State University, LaCrosse, B.A.; University of Michigan, M.A.
- GERALD DONLEY (1965) *Instructor. Coordinator of School Relations*
Wisconsin State University, River Falls, B.S.; Stout State University, M.S.
- MARY R. DONLEY (1959) *Assistant Librarian. Assistant Professor*
University of Minnesota, B.A., M.A.; Columbia University, Graduate Study.
- JOHN DULING (1965) *Assistant Professor. Education, Psychology, and Guidance*
Colorado State University, B.M.; Western State College of Colorado, A.M.; Colorado State College, Graduate Study.
- EDWIN W. DYAS (1956) *Associate Professor. Wood Technics*
University of Nebraska, B.S.; University of Minnesota, M.A.; University of Omaha, Stout State University, Graduate Study.
- KENNETH J. ERICKSON (1961) *Assistant Professor, Industrial Graphics*
Wisconsin State University, Platteville, B.S.; University of Minnesota, M.A., Graduate Study.
- WESLEY L. FACE (1957) *Chairman of Department of Metals. Director of American Industry Project. Professor*
Northern State College, South Dakota, B.S.; Stout State University, M.S.; University of Illinois, Ed. D.
- NOEL J. FALKOFSKE (1962) *Instructor. Speech*
Wisconsin State University, River Falls, B.S.; Kent State University, M.A.
- EUGENE R. F. FLUG (1962) *Associate Professor. Co-director of American Industry Project*
University of Minnesota, B.B.A., B.S., M.A.
- RICHARD P. FRIEDRICH (1961) *Assistant Professor. English*
St. Procopius College, A.B.; University of Wisconsin, M.S.

- ORAZIO FUMAGALLI (1964) *Chairman of Department of Art. Associate Professor*
State University of Iowa, B.A., M.F.A., Ph.D.
- JOHN FURLONG (1963) *Assistant to the President. Associate Professor*
University of Minnesota, B.S., M.A., Ph.D.
- JACK A. GANZEMILLER (1963) *Instructor. Industrial Technology*
General Motors Institute, B.M.E.; Purdue University, M.S.
- CLIFFORD C. GAUTHIER (1963) *Assistant Professor. Mathematics*
St. Cloud State College, B.S.; Bemidji State College, M.S.; Boston College, Graduate Study.
- RICHARD HARROLD GEBHARD (1965) *Assistant Professor. American Industry Project*
Northern State Teachers College, B.S., M.S.
- GLENN GEHRING (1965) *Assistant Professor. Metals*
South Dakota State University, B.S.; Stout State University, M.S.; University of Illinois, Ed.D.
- EARL W. GIERKE (1962) *Associate Professor. Mathematics*
University of Minnesota, B.S., M.A., Graduate Study.
- THOMAS E. GRAY (1961) *Instructor. Printing*
Northwestern State College, Louisiana, B.S., M.S.; University of Minnesota, Graduate Study.
- HAROLD HALFIN (1956) *Associate Professor. Metals*
Fairmont State College, A.B.; Stout State University, M.S.
- MYRON HARBOUR (1947) *Associate Professor. Physics*
Wisconsin State University, Superior, B.E.; University of Wisconsin, Ph.M.
- ROBERT R. HARDMAN (1964) *Assistant Professor. Audio-Visual Education*
Maryland State College, B.S.; Indiana University, M.S.
- MARGARET E. HARPER (1943) *Associate Professor. Home Economics Teacher Education*
Kansas Wesleyan University, B.S.; Kansas State University, M.S.; Colorado State University, Iowa State University, Graduate Study.

- RICHARD M. HENAK (1965) *Instructor. Wood Technics*
State College of Iowa, B.S.; Ball State University, M.A.
- HARRY A. HERBERT (1965) *Instructor. Audio-Visual Education*
Bowling Green State University, B.S.; Stout State University, M.S.
- JAMES F. HERR (1965) *Instructor. Printing*
Stout State University, B.S., M.S.
- MARYBELLE HICKNER (1965) *Assistant Professor. Home Economics Teacher Education*
University of Minnesota, B.S., M.A., Graduate Study.
- ARMAND G. HOFER (1964) *Associate Professor. Wood Technics*
Northwest Missouri State College, B.S.; University of Missouri, M.Ed., Ed.D.
- PAUL R. HOFFMAN (1964) *Assistant Professor. Director of Counseling Center*
University of Maine, B.A.; University of Iowa, University of Arizona, Ed.D.
- ROBERT HOKENESS (1965) *Instructor. Wood Technics*
Mankato State College, B.S.; Stout State University, M.S.
- EDWARD HORN (1965) *Instructor. Industrial Graphics*
Western State College of Colorado, A.B., Colorado State College, A.M.
- RALPH G. IVERSON (1951) *Dean of Student Services. Professor. Education and Psychology*
Augustana College, B.A.; University of Minnesota, M.A.; University of California, Ed.D.
- MARGARET A. JAMES (1961) *Assistant Professor. Food and Nutrition*
University of Wisconsin, B.S., M.S.; University of Minnesota, Graduate Study
- JOHN A. JARVIS (1946) *Dean of Instruction. Professor*
University of Wisconsin, B.S. in Mechanical Engineering; Stout State University, B.S.; Wayne State University, M.Ed.; University of Minnesota, Ph.D.

JOHN J. JAX (1959) *Assistant Librarian. Assistant Professor*
Wisconsin State University, LaCrosse, B.A.; University of Wisconsin,
M.S.; University of Minnesota, Graduate Study.

GUST JENSEN (1965) *Assistant Professor. Psychology and Guidance*
University of Missouri, B.S., M.A., Graduate Study.

MICHAEL J. JERRY (1962) *Instructor. Art*
Rochester Institute of Technology, B.F.A., M.F.A.; Cranbrook Aca-
demy of Art, Graduate Study.

RAY C. JOHNSON (1938) *Chairman of Department of Physical Education.*
Associate Professor
Moorhead State College, B.E.; Columbia University, M.A.; New York
University, Graduate Study.

GORDON G. JONES (1965) *Instructor. Mathematics*
North Dakota School of Forestry, North Dakota State University,
B.S., M.Ed.

ROSEMARY JONES (1965) *Instructor. Food and Nutrition*
North Dakota State University, B.S.; Kansas State University, M.S.

MARY KILLIAN (1947) *Director of Institution Management. Professor*
Omaha University, B.S.; Creighton University, M.A.; Columbia Uni-
versity, St. Louis University, Graduate Study.

BONNIE M. KIRKWOOD (1964) *Instructor. Clothing and Textiles*
State College of Iowa, B.A.; State University of Iowa, M.A.

DICK G. KLATT (1952) *Assistant Professor. Metals*
Stout State University, B.S., M.S.

LOUIS L. KLITZKE (1960) *Associate Professor. Education and Psychology*
Southwestern College, A.B.; Colorado State College, M.A., Ed. D.

ALBERT KOTIN (1965) *Artist-In-Residence. Art*
Art Students League, New York; National Academy, New York;
Chas. Hawthorne, Provincetown, Mass.; Academie Julian, Paris; Aca-
demie De La Grande Chaumiere, Paris; Atelier De Fresque, Paris;
Hans Hofmann, New York.

O. CLIFFORD KUBLY (1956) *Assistant Professor. Physics*

Wisconsin State University, Platteville, B.E.; University of Wisconsin, M.S.; Case Institute of Technology, University of South Carolina, Graduate Study.

MARVIN M. KUFAHL (1956) *Assistant Professor. Metals*

Stout State University, B.S., M.S.

LORNA S. LENGFELD (1956) *Associate Professor. Speech*

State College of Iowa, Northwestern University, University of Minnesota, University of Wisconsin, B.A.; University of Wisconsin, M.A. Ph.D.

DAVID WEI-PING LIU (1964) *Assistant Professor. Economics*

National Chengchi University, B.S.; University of Kentucky, M.S.; University of Minnesota, Ph.D.

EDWARD M. LOWRY (1959) *Professor. Biology*

Ripon College, A.B.; University of Michigan, University of North Carolina, Michigan State University, University of Missouri, Ph.D.

DANIEL O. MAGNUSSEN (1965) *Assistant Professor. History*

University of Montana, B.A., M.A., Graduate Study

EINO MAKI (1963) *Assistant Professor. Mathematics*

Ferris Institute, B.S.; University of Wisconsin, M.S.

WILLIAM W. MAMEL (1964) *Instructor. Industrial Teacher Education*

University of Minnesota, B.S., M.S.

PETER J. MARCUS (1965) *Instructor. Art*

New York University, B.S.; Brooklyn College, M.F.A.

ANNE MARSHALL (1939) *Chairman of Department of Science. Professor. Biology*

Denison University, B.S.; Ohio State University, M.A., Ph.D.

MARY BETH MCDUFFEE (1964) *Instructor. English*

Wilson College, B.A.; The Johns Hopkins University, M.A.; Southern Illinois University, Graduate Study.

- ELLA JANE MEILLER (1950) *Head of Department of Food and Nutrition. Professor*
Kansas State University, B.S.; University of Wisconsin, M.S.; Kansas State University, University of Minnesota, Graduate Study.
- ROBERT J. MELROSE (1958) *Associate Professor. History and Political Science*
Stout State University, Wisconsin State University, Eau Claire, B.S.; Wisconsin State University, Superior, University of Minnesota, M.A., Graduate Study
- RICHARD H. MILLER (1964) *Assistant Professor. Mathematics*
Moorhead State College, B.S.; North Dakota State University, M.S.
- BEATRICE MAVIS MILLS (1965) *Assistant Professor. Child Development and Family Life*
Kindergarten College, Brisbane, Australia, Diploma; Indiana State University, M.S.
- DWAIN P. MINTZ (1962) *Assistant Professor. Physical Education*
Mankato State College, B.S., M.S.
- HARLAN MISFELDT (1965) *Instructor. American Industry Project*
Stout State University, B.S., M.S.
- MARY M. MOORE (1965) *Instructor. English*
Wisconsin State University, Oshkosh, B.A.; University of Wisconsin, M.A.
- EDWARD O. MORICAL (1957) *Assistant Professor. Electricity and Mechanics*
Bemidji State College, B.S.; Wayne State University, M. Ed., Graduate Study.
- ARTHUR MULLER (1965) *Instructor. Metals*
Stout State University, M.S., B.S.
- ORVILLE NELSON (1963) *American Industry Project. Assistant Professor*
Stout State University, B.S.; University of Minnesota, M.A.
- WOLFRAM F. NIESSEN (1954) *Assistant Professor. Art*
Freie Akademie, Mannheim, Germany; A.d.B. Kunste, Karlsruhe, Germany; A.d.B. Kunste, Mainz, Germany, M.A.; University of Saskatchewan, Michigan State University, M.F.A.
- OTTO NITZ (1952) *Professor. Chemistry*
Elmhurst College, B.S.; University of Iowa, M.S., Ph.D.

ERICH RICHARD OETTING (1945) *Director of Teacher Education. Chairman of Department of Education and Psychology. Professor*
Wayne State Teachers College, B.A.; University of Wisconsin, University of Nebraska, M.A., Ph.D.

RAMON A. OLDENBERG (1965) *Assistant Professor. Sociology*
Mankato State College, B.S.; University of Minnesota, M.A.

DONALD DUANE OLSEN (1965) *Assistant Librarian. Instructor*
University of Minnesota, B.A., M.A.

K. T. OLSEN (1947) *Associate Professor. Wood Technics*
Iowa State University, B.S., M.S., Graduate Study.

ARNOLD E. OLSON (1964) *Instructor. Sociology*
Augustana College, B.A.; Stout State University, M.A.; University of Minnesota, Graduate Study.

GENE A. OLSON (1965) *Instructor. Biology*
Luther College, B.A.; University of Michigan, M.A.; St. Mary's College, Graduate Study.

ANGELO ORTENZI (1965) *Assistant Professor. Director of Student Activities and Student Center*
Hershey Junior College, Pennsylvania State University, B.S., M. Ed., D.Ed.

DON R. ORTLEY (1961) *Instructor. Electricity and Mechanics*
Mankato State College, B.S.; Stout State University, M.S.

WILLIAM OWEN (1961) *Associate Professor. Chemistry*
Colorado State University, B.S.; University of Denver, M.A.; Colorado State College, Ed.D.

EVELYN PAGEL (1965) *Instructor. Food and Nutrition*
Mankato State College, B.A.; Colorado State University, M.S.

STELLA M. PEDERSEN (1961) *Dean of Women. Professor. Education*
Wisconsin State University, River Falls, B.E.; University of Minnesota, M.A.; University of Minnesota, Northwestern University, Columbia University, Graduate Study.

ROBERT L. PHELPS (1961) *Assistant Professor. English, Journalism*
Morningside College, B.A.; Syracuse University, M.A.

- ARNOLD C. PIERSALL (1960) *Professor. Chairman of the Department of Wood Technics and Plastics*
Iowa State Teachers College, B.A.; Colorado State College, M.A.; University of Missouri, University of Wyoming, Colorado State College, Ed.D.
- MERLE M. PRICE (1929) *Dean of Men, Professor. Political Science*
St. Cloud State College, Diploma; University of Minnesota, B.S., M.A., Graduate Study.
- NEAL W. PRICHARD (1962) *Associate Professor. Industrial Teacher Education*
University of Minnesota, B.S., M.A.; Pennsylvania State University, Ed.D.
- LYNN L. PRITCHARD (1965) *Instructor. Music*
Wisconsin State University, Eau Claire, B.S.; Colorado State College, M.A.
- WARREN PUHL (1965) *Instructor. Chemistry*
Wisconsin State University, Eau Claire, B.S.; New Mexico Highlands University, M.S.
- DENNIS RAARUP (1963) *Assistant Professor. Physical Education*
Gustavus Adolphus College, B.S.; University of Minnesota, M.A.
- SHERMAN RANDERSON (1965) *Assistant Professor. Biology*
St. Norbert College, B.S.; University of Detroit, M.S.; University of Michigan, M.S., Ph.D.
- MARY JOSEPHINE RATHKE (1959) *Assistant Professor. English*
College of Saint Teresa, A.B.; University of Wisconsin, M.A.
- ROBERT IRVING RENCE (1965) *Assistant Professor. Speech*
Trenton State College, B.S.; Pasadena Playhouse College of Theatre Arts, B.T.A.; Occidental College, M.A.; University of Utah, University of Minnesota, Graduate Study.
- MATTHEW RENESON (1949) *Assistant Professor. Mathematics*
Fitchburg Teachers College, B.S.; University of Minnesota, M.A.; Wayne State University, Clark University, University of Missouri, University of Wisconsin, University of Illinois, Graduate Study.
- EMMA JANE RENN (1965) *Instructor. Clothing and Textiles*
Shepherd College, B.S., B.A.; Pennsylvania State University, M.S.

- EVELYN G. RIMEL (1961) *Professor. Education and Psychology*
Montana State University, B.A., M.A.; Syracuse University, Ph.D.;
Merrill-Palmer Institute, Post-doctoral Study.
- MICHAEL D. RITLAND (1964) *Assistant Professor. Education and Psychology*
Luther College, B.A.; Colorado State College, M.A., Graduate Study.
- AGNES RONALDSON (1965) *Professor. Dean of the School of Home Economics*
Cornell University, B.S.; New York University, M.A.; Columbia
University, Ed.D.
- CHARLOTTE L. ROSE (1961) *Associate Professor. Home Management and
Family Economics*
Olivet Nazarene College, B.S.; University of Illinois, M.S., Graduate
Study.
- JANE ROSENTHAL (1962) *Assistant Professor. Home Economics Teacher
Education*
Stout State University, B.S., M.S.; Colorado State University, Gradu-
ate Study.
- E. ROBERT RUDIGER (1952) *Professor. Chairman of Department of Industrial
Teacher Education*
Stout State University, B.S., M.S.; University of Missouri, Ed.D.
- K. L. RUE (1957) *Assistant Professor. Physics*
University of North Dakota, B.A.; University of Minnesota, M.S.;
Ohio University, Kansas University, Michigan State University,
Graduate Study.
- PHILIP W. RUEHL (1948) *Chairman of Department of Electricity and Me-
chanics. Professor. Electricity, Electronics*
Stout State University, B.S., M.S.; University of Minnesota, Ph.D.
- JOHN SABOL (1964) *Assistant Professor. Social Science*
Michigan State University, B.A., M.A.; Ohio State University, Gradu-
ate Study.
- FRANCIS A. SAKIEY (1965) *Instructor. Industrial Technology*
Rider College, B.S.; Eastern Michigan University, M.S.
- GUY SALTER (1948) *Professor. Education and Psychology*
University of Missouri, A.B., A.M.; University of Nebraska, Ph.D.;
University of Minnesota, Columbia University, Graduate Study.

- JEANNE SALTER (1949) *Instructor. Clothing and Textiles*
Kent State University, B.S.; University of Wisconsin, M.S.
- JACK SAMPSON (1957) *Associate Professor. Electricity and Mechanics*
University of North Dakota, B.S.; Stout State University, M.S.; University of North Dakota, Graduate Study.
- ROBERT D. SATHER (1963) *Instructor. Financial Aids Counselor*
Wisconsin State University, Eau Claire, B.S.; Stout State University, M.S.
- ROBERT T. SATHER (1960) *Assistant Professor. English*
St. John's University, B.S.; Marquette University, M.A.; University of Wisconsin, Graduate Study.
- GERALD SCHEMANSKY (1958) *Assistant Professor. Printing*
Stout State University, B.S., M.S.
- AUGUST J. SCHULZ (1964) *Assistant Professor. Driver-Safety Education*
Stout State University, B.S.; New York University, M.A., Graduate Study.
- LARRY M. SEDGWICK (1965) *Assistant Professor. American Industry Project*
Kansas State College, B.S.; Southern Illinois University, M.S.; Purdue University, Ph.D.
- EDWIN SIEFFERT (1949) *Associate Professor. Industrial Graphics*
Stout State University, B.S.; Wayne State University, M.E.; Stout State University, Pennsylvania State University, University of Illinois, University of New York, Bradley University, Graduate Study.
- HELEN KAREN SHAPPLEY (1965) *Instructor. Food and Nutrition*
Harding College, B.S.; Iowa State University, M.S.
- VIRGINIA A. SHEA (1965) *Instructor. English*
University of Hartford, A.B.; Temple University, M.A.
- LEE HAROLD SMALLEY (1965) *Associate Professor. Industrial Arts Teacher Education*
State College of Iowa, B.A.; University of Maryland, M.Ed.; Michigan State University, Ed.D.

- BENITA GROTE SMITH (1943) *Associate Professor. Child Development*
Iowa State University, B.S.; Merrill-Palmer Institute, Iowa State University, M.S.; University of Minnesota, Graduate Study.
- MOISHE SMITH (1965) *Assistant Professor. Art*
New School, New York, B.A.; State University of Iowa, M.F.A., M.A.
- GEORGE A. SODERBERG (1945) *Associate Professor. Wood Technics*
Stout State University, B.S.; University of Minnesota, M.A.
- WESLEY S. SOMMERS (1956) *Chairman of Development of Industrial Technology. Professor*
University of Michigan, B.S.E., A.M.; Syracuse University, University of Minnesota, Ph.D.
- MAX SPARGER (1959) *Assistant Professor. Physical Education*
University of Dubuque, B.S.; Macalaster College, M.Ed.
- PAUL SPEIDEL (1964) *Instructor. Metals*
Ellendale State College, B.S.; Colorado State University, M.E.; Northern State College, Graduate Study.
- ROBERT SPINTI (1957) *Associate Professor. Electricity and Mechanics*
Stout State University, B.S., M.S.; Pennsylvania State University, University of Missouri, Graduate Study.
- BESSIE W. SPRATT (1963) *Assistant Professor. Home Economics Teacher Education*
Iowa State University, B.S.; Michigan State University, State University of Iowa, Iowa State University, M.S.; North Dakota State University, Graduate Study.
- JOHN R. STEWART (1964) *Instructor. Speech*
Centralia College, Pacific Lutheran University, B.A.; Northwestern University, M.A.
- EDWIN STREED (1965) *Instructor. Mathematics*
St. Cloud State College, B.S.; North Dakota State University, M.S.
- ROBERT SWANSON (1950) *Dean of the School of Applied Science and Technology. Professor.*
Stout State University, B.S., M.S.; University of Minnesota, Ph.D.

- RITA TODD (1963) *Instructor. Clothing and Textiles*
Stout State University, B.S., M.S.
- LOUIS TOKLE (1965) *Assistant Professor. Economics*
University of Montana, B.A.; University of Denver, M.B.A.; University of California, University of Montana, Graduate Study.
- LYDD TRENT (1965) *Assistant Professor. Coordinator of University Relations*
University of North Dakota, B.A., M.S.
- GLADYS TRULLINGER (1936) *Assistant Dean of the School of Home Economics. Chairman of Department of Home Management and Family Economics. Professor*
University of Nebraska, B.S., M.S.; Colorado State College, Michigan State University, Iowa State University, University of Minnesota, Graduate Study.
- MILDRED TURNEY (1965) *Professor. Chairman of Department of Home Economics Teacher Education*
University of Cincinnati, B.S.; Pennsylvania State University, M.Ed.; Columbia University, Graduate Study.
- ALYCE D. VANEK (1954) *Assistant Professor. Art*
Stout State University, B.S., M.S.
- HAZEL VAN NESS (1929) *Professor. Clothing and Textiles*
Syracuse University, B.S.; Columbia University, M.A.; Columbia University, Michigan State University, Syracuse University, University of Tennessee, Graduate Study.
- BETTY JANE VIENS (1963) *Assistant Professor. Food and Nutrition*
University of Wisconsin, B.S.; Stout State University, M.S.
- G. S. WALL (1952) *Professor. Education*
Winona State College, Diploma; University of Minnesota, B.S., M.A., Ph.D.
- BRUCE WALLEY (1965) *Assistant Professor. Industrial Teacher Education*
University of Northern Illinois, B.S.; Stout State University, M.S.; University of Missouri, Graduate Study.
- BETTY MARGUERITE WASS (1965) *Instructor. Clothing and Textiles*
University of Minnesota, B.S.; Michigan State University, M.A.

LLOYD WHYDOTSKI (1949) *Head of Department of Printing. Associate Professor*

Stout State University, B.S.; Colorado State College, M.A.

THEODORE E. WIEHE (1954) *Associate Professor. Metals*

Oklahoma State University, B.S., M.S.; University of Missouri, Ed.D.

RAY A. WIGEN (1933) *Dean of Graduate Studies. Professor. Education*

Wisconsin State University, River Falls, Diploma; University of Minnesota, B.S., M.A., Ph.D.

JOHN A. WILL (1965) *Instructor. Art*

State College of Iowa, B.A.; State University of Iowa, M.F.A.

MARY K. WILLIAMS (1954) *Assistant Professor. Art*

University of Wisconsin, B.S., M.A.; Graphis Lehr and Versuchanstalt, Hertha Buchner Keramics, Vienna, New York University, Chicago Institute of Design, University of Wisconsin, Chicago Art Institute, University of Illinois, Graduate Study.

ROBERT F. WILSON (1960) *Instructor. Art*

Ohio State University, B.F.A., M.A., M.F.A.

RICHARD WOLD (1964) *Instructor. Industrial Graphics*

University of Minnesota, Duluth, B.A.; San Francisco State College, M.A.; California School of Fine Arts, Graduate Study.

SAMUEL WOOD (1964) *Assistant Professor. Assistant Registrar*

State College of Iowa, B.A.; State University of Iowa, M.A., Graduate Study.

ROBERT WURTZ (1965) *Assistant Professor. Psychology and Guidance*

Rockhurst College, B.S.; University of Wyoming, M.A.; Kansas State University, University of Wyoming, Graduate Study.

NORMAN C. ZIEMANN (1949) *Head of Department of Speech. Professor*

Wisconsin State University, LaCrosse, B.S.; Northwestern University, M.A., Ph.D.

EMERITUS

VERNE C. FRYKLUND, PH.D.	<i>President</i> (1945-1961)
CLYDE A. BOWMAN, M.S.	<i>Dean of the School of Industrial Education</i> (1919-1953)
ALICE J. KIRK, ED.D.	<i>Dean of the School of Home Economics</i> (1947-1963)
RUTH E. MICHEALS, M.A.	<i>Dean of the School of Home Economics</i> (1927-1947)
KETURAH ANTRIM, PH.M.	<i>Physical Education</i> (1936-1965)
FREDA M. BACHMANN, PH.D.	<i>Biology</i> (1924-1939)
GERTRUDE L. CALLAHAN, PH.M.	<i>English</i> (1927-1961)
ELEANOR H. COX, M.A.	<i>Chemistry</i> (1942-1965)
MARGARET WINNONA CRUISE, M.S.	<i>Food and Nutrition</i> (1927-1947)
FRED L. CURRAN, M.A.	<i>Industrial Education</i> (1908-1941)
LILLIAN M. FROGATT, A.M.L.S.	<i>Librarian</i> (1924-1955)
H. M. HANSEN, M.A.	<i>Woodworking</i> (1912-1952)
MABEL ROGERS HUGGINS, M.A.	<i>Food and Nutrition</i> (1935-1947)
LILLIAN JETER, M.A.	<i>Clothing and Textiles</i> (1927-1961)
FLOYD KEITH, M.S.	<i>Metalworking</i> (1922-1961)
RAY F. KRANZUSCH, M.S.	<i>Mechanics</i> (1924-1964)
HAROLD C. MILNES, M.S.	<i>Machine Shop</i> (1916-1954)
ANN NOBLE, M.S.	<i>Home Economics Education</i> (1947-1963)
GERTRUDE M. O'BRIEN, PH.M.	<i>Registrar</i> (1928-1955)
J. E. RAY, ED.D.	<i>Drafting</i> (1914-1959)

COOPERATING SCHOOLS IN THE STUDENT TEACHING PROGRAM

HOME ECONOMICS EDUCATION

MENOMONIE, WISCONSIN

SCHOOL	SUPERVISING TEACHER	ADMINISTRATOR
Menomonie Junior & Senior High School	Mrs. Judy Jax Mrs. Carolyn Papatriantafyllou Mrs. Frances Schneider	William Terrill, Superintendent Lyle Pollock, Principal Edward Phelan, Junior High School Principal

OFF CAMPUS

Amery High School	Mrs. Annabelle Wikkerink	Daryl K. Lein, Superintendent Alan Stoddard, Principal
Blair High School	Mrs. Charlotte Kling	Donald Jacobson, Superintendent Gerald Sislo, Principal
Colby High School	Miss Carol Machovec	Douglas Hendrickson, Superintendent Wayne Kassera, Principal
Chetek High School	Mrs. Eleanore Johnson	G. R. Isaacs, Superintendent Alvin Aho, Principal
Cochrane-Fountain City High School	Mrs. Ruth Schaffner	Richard O. Peterson Superintendent Ralph Leahy, Principal
Cornell High School	Mrs. Helen Roberts	O. T. Premo, Superintendent W. J. Stowell, Principal
Eau Claire, Memorial High School	Mrs. Joan Caterina	Homer DeLong, Superintendent John Gallagher, Principal

Eau Claire, North High School	Mrs. Ellen Peterson	Homer DeLong, Superintendent D. Barnes, Principal
Elk Mound High School	Mrs. Mary Cartwright	Bruce Erickson, Superintendent
LaCrosse, Longfellow Junior High School	Mrs. Betty Taylor	John S. Bjorge, Superintendent D. R. Kinney, Principal
Ladysmith High School	Mrs. Dragica Nerbun	H. Schiotz, Superintendent Edward Falstad, Principal
Mondovi High School	Miss Jane Klatt	W. H. Hehli, Superintendent John P. Herpst, Principal
New Richmond Senior High School	Mrs. Janet Rose	P. Groves, Superintendent Ralph Neale, Principal
Osseo High School	Miss Linda Oldenburg	G. E. Rodeen, Superintendent John Leadholm, Principal
Owen-Withee High School	Mrs. Sadie Mundt Mrs. Frank Olszewski	Myron J. Fritsch, Superintendent Ed. E. Miller, Principal
Rice Lake Senior High School	Miss Janet Linse	Louis M. King, Superintendent Willard Swanson, Principal
River Falls High School	Mrs. Gloria Bryhn	L. Dawson, Superintendent Homer Krengel, Principal
Spring Valley High School	Miss Blanche Maxwell	Robert L. Deetz, Superintendent Charles G. Anderson, Principal

INTERN TEACHING PROGRAM

Beaver Dam High School	Mrs. Nellie Miller	Eric Becker, Superintendent Robert Whitnall, Principal
Janesville, Franklin Junior High School	Miss Ruth Ann Potts	Fred Holt, Superintendent Ray Brussat, Principal
Racine, Washington Park High School	Miss Murval Weidlein	John Prash, Superintendent LeRoy Ludeman, Principal
Sheboygan, South Senior High School	Miss Joyce Ellingson	Leslie Johnson, Superintendent John Hahn, Principal
West Bend High School	Mrs. Helen Goska	Paul Loofboro, Superintendent Arthur Weiner, Principal

INDUSTRIAL EDUCATION

MENOMONIE, WISCONSIN

SCHOOL	SUPERVISING TEACHER	ADMINISTRATOR
Menomonie Junior & Senior High School	Wilburn Myers William Wulf James Tarbert	William Terrill, Superintendent Lyle Pollock, Principal Edward Phelan, Junior High School Principal

OFF CAMPUS

Altoona High School	Wayne West	Einar Peterson, Principal
Beaver Dam High School	Clinton Byrnes Edward Krause Orlando Paciotte Otto Steinike	Eric T. Becker, Superintendent Robert Whitnall, Principal

Black River Falls High School	Raymond D. Johnson	M. C. Schmallerberg, Superintendent Norman Krenz, Principal
Chippewa Falls High School	Vernon Knox	Robert Holmstad, Superintendent Earl J. Molland, Principal
Clintonville High School	Roger Gibbons	K. O. Rawson, Superintendent Burr Tolles, Principal
Durand High School	Clyde Schwellenbach	Gordon H. Heuer, Superintendent Vaughn Hoffman, Principal
Eau Claire, Central Junior High School	Orville Torgerson	Homer E. DeLong Superintendent Donald J. Mathison, Principal
Eau Claire, Memorial High School	Clifford Stanford Donald Hanson	Homer E. DeLong Superintendent John Gallagher, Principal
Eau Claire, North High School	Clifford Culver	Homer E. DeLong Superintendent Vernette Peterson, Principal
Eau Claire, Regis High School	Robert Duren	Rev. John D. Rossiter, Principal
Eau Claire, Technical Institute	August Bell Fred Brechlin Vincent Myrick Elmer Roos	Cecil Beede, Director
Hudson Junior High School	Kenneth Kaiser	Alfred Ogland, Superintendent Neil Schumacher, Principal

Hudson Senior High School	Alvin Weitkamp	Alfred Oglund, Superintendent W. G. Heiting, Principal
Kaukauna Vocational School	William E. Roerig Walter J. Vernon William Mittelstaedt	D. J. Bordini, Director
LaCrosse, Central High School	Robert McLeod Richard Mitchell	John A. Bjorge, Superintendent Willard W. Hanson, Principal
LaCrosse, Coleman Vocational & Adult School	James A. Becker Neal O. Stromstad	Arthur F. Jordan, Director
Ladysmith High School	John Cardinal	Harold Schiotz, Superintendent Edward Falstad, Principal
Manitowoc, Lincoln High School	Harry Olstad Sanford Ericson Lawrence Bohn Gordon Heffernan Warren Schuster Lloyd Hoeffner	C. E. Jones, Superintendent Rufin W. Boyd, Principal
Marion High School	Robert Eggleston	Lloyd F. Nell, Superintendent Malcolm Anderson, Principal
Mayville High School	Ron Ebben	Woodrow Sizer, Superintendent Richard Roth, Principal
Menasha High School	Charles Bruemmer Vernon Knox	M. J. Gegan, Superintendent H. L. Sherman, Director of Vocational Education

Neenah High School	Al Poellinger	Donald Scott, Superintendent H. O. Borgen, Principal
Plymouth High School	Ernest Hauke George Haffeman	Eldon M. Amundson, Superintendent John Richards, Principal
Preble High School	Robert Boehm Leon Stephenson Darrell Polzin	Russell Way, Superintendent Peter Hamel, Principal
Rice Lake High School	Francis Miller	Louis M. King, Superintendent W. L. Swanson, Principal
Rice Lake Vocational and Technical School	James Covey	Wes Burdick, Director
Ripon High School	Harlyn Misfeldt	Robert Belle, Cur- riculum Coordinator Alfred Brown, Principal
Shawano High School	Fred Ponschok John Reilly	Charles Hub, Superintendent Gilbert Muellenbach, Principal
Stevens Point, Jacobs High School	Willard J. Schlice	A. Moldenhauer, Superintendent A. G. Bostad, Principal
Two Rivers High School	Anton Kotyza Jerome Kain	George M. O'Brien Superintendent Earl G. Kromer, Principal
Two Rivers Vocational & Adult School	William Neverdahl	Conrad Mayer, Director
Waukesha High School	Allen Armour John Chase Guy Jacobucci John Lehockey Robert Solberg	R. G. Hein, Superintendent Clifford Goerke, Principal

Waupaca High School	John Morgan	George Hendrickson, Superintendent Clarence Riddle, Principal
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Wausau High School	Allen Johnson Paul Smith	G. W. Bannerman, Superintendent Marshall Taylor, Principal
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Wausau Technical Institute	Lawrence Ferdon Norman Lerch	Lawrence B. Hoyt, Director
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INTERN TEACHING PROGRAM

Beaver Dam High School	Otto Steinike	Eric T. Becker Superintendent Robert Whitnall, Principal
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Sheboygan South High School	Jerald Schoenike	Leslie W. Johnson, Superintendent John Hahn, Principal
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Wausau High School	Paul Smith	G. W. Bannerman, Superintendent Marshall R. Taylor, Principal
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Wauwatosa West High School	Warren Cartier Wes Gadbaw	John S. Fochs, Superintendent W. Earl Harmon, Principal
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GENERAL INFORMATION

Stout State University, one of the nine state universities in Wisconsin, prepares its graduates for professional positions in education, industry and business.

Stout was established in 1893 to prepare teachers for vocational, industrial, and home economics education. At first, only two-year curricula were offered. In 1917 the four-year program, and in 1935 the fifth year on the graduate level, leading to degree of Master of Science, were authorized. During these years of development and expansion, Stout held consistently to its original function of preparing teachers in the several specialized fields. This remains a prominent function today, but breadth has been added in the form of degree programs to prepare school personnel in art, audio-visual education, and guidance. In addition, a fine arts major is offered, as well as a two-year concentration in liberal arts subjects.

For many years Stout graduates holding teaching degrees have moved into business and industry because of their specialized preparation. In recent years additional degree programs have been developed for the direct purpose of preparing graduates for entry into business and industry.

Industrial technology graduates hold a variety of industrial positions in product development, plant engineering, technical writing, light building construction, production management, packaging, and technical sales and service.

The home economics courses at Stout also provide preparation directed toward a variety of vocations in addition to teaching. Students are prepared for responsible positions as dietitians, home demonstration agents, teachers and supervisors of nursery schools, and managers of cafeterias and restaurants. Graduates are also qualified to enter the fields of commercial demonstration; food, textile, and equipment research; home economics journalism; and family life education. Regardless of what field a student may plan to enter, an education in home economics is the kind of specialized and cultural education which will prepare her for marriage and citizenship.

Provisions are made for students to complete requirements for the degree of Bachelor of Science or to take undergraduate work beyond the degree requirements for refresher purposes. Graduate work is offered during both the regular session and the summer session. This curriculum leads to the degree of Master of Science with the major in vocational education, industrial education, home economics education, guidance and counseling, and audio-visual education. For persons interested in study in these fields, Stout State University has unusual facilities and an unex-

celled faculty. A special Graduate Studies Bulletin is available for interested persons.

The university year is thirty-six weeks in length. There are two semesters of eighteen weeks each. The summer session, which opens each year in June, two weeks after the close of the regular session, is eight weeks in length. Special short courses of one or two weeks' duration are held both before and after the regular summer session.

HISTORY

The heritage of Stout State University is linked to the career, foresight, and generosity of Senator James H. Stout, pioneer Menomonie lumberman. Senator Stout's respect for acquired skill prompted him to establish a program of manual training and domestic science in the Menomonie grade and high schools in 1891.

The program soon outgrew the facilities, however, and by 1893, new buildings were constructed and the Stout Manual Training and Domestic Science School, still a part of the public school system, remained under the patronage of Senator Stout.

Guided by President Lorenzo Dow Harvey, who was appointed in 1903, the school grew and in 1908 changed its name to The Stout Institute as an independent corporation. Three years later and one year after the death of Senator Stout, the institute was put under control of a board of trustees appointed by the state of Wisconsin.

With state support, The Stout Institute continued to progress in the pattern envisioned by its founder. In 1917, state legislative action made it a degree-granting college. Evolution continued under the leadership of Presidents Harvey and Burton E. Nelson; in 1935, the Stout Institute was authorized to offer postgraduate study and to grant the Master of Science degree in industrial education, vocational education, and home economics.

Dr. Verne C. Fryklund became president of the college in 1945. In 1955 the school became Stout State College and was placed under the jurisdiction of the Board of Regents of Wisconsin State Colleges. The school was also authorized to grant the Bachelor of Science degree in industrial technology in addition to the other degrees certified previously.

Dr. Fryklund guided the college through the period of burgeoning enrollment immediately after World War II and saw it well into a major building program before he passed the responsibility in 1961 to Dr. William J. Micheels, an alumnus of The Stout Institute, who became the college's fourth president. In 1964, the college became Stout State University.

In the early and middle 60's the building is continuing, prospects for enrollment show a rising curve, but the university remains remarkably true to the purposes Senator Stout espoused. The reputation of the university, as established and maintained by the success of its graduates, has become world-wide and continues to be unsurpassed in its field.

OBJECTIVES OF THE UNIVERSITY

The objective of any college is to supply its students with knowledge, experience, and service in keeping with its general purpose. The basic objective of Stout State University can be stated in this way: to introduce students to the basic areas and systems of knowledge, to instill in them a desire to examine their lives' experiences critically and to provide the tools with which to make that examination, to induce them to use the knowledge they acquire and the critical faculties they develop to pursue depth a vocational specialty.

Beyond this general objective, Stout State University has several specific educational aims. It hopes to instill in each student the ability and desire to:

1. Think constructively and creatively.
2. Participate in the discussion and solution of local, national and international problems.
3. Achieve a sense of social responsibility leading to a concern for the improvement of society.
4. Understand and appreciate the ideas of others and express his own effectively.
5. Understand the important discoveries of mankind and their impact on humanity.
6. Comprehend literature, art, music, crafts, and drama as expressions of others' experiences.
7. Attain social and emotional adjustment.
8. Attain a constructive attitude toward change; accept it when it seems necessary, or reject it when it seems unwarranted.
9. Enter a suitable occupation and advance in it to the limit of his abilities.

In addition to the personal values it hopes to help its students realize, Stout State University also serves three broad, interrelated functions as an institution chartered by the state:

The Education Function

1. Provide guidance and counseling to aid students in identifying their problems and selecting suitable courses of action.
2. Prepare professional personnel for a variety of levels and types of schools.
3. Prepare persons for professional positions in business and industry.
4. Provide a liberal cultural background for students regardless of specialty.
5. Provide a broad technical background to students preparing to engage in specialized work.
6. Prepare students to transfer to other colleges for specialties other than those offered by the university.

The Service Function

1. Provide leadership to the profession in the areas of work offered by the university.
2. Provide professional service to schools in the form of consultation, evaluations, in-service education, curriculum planning, and plant development.
3. Provide professional service to business and industry and serve as objective critics in the fields in which the university specializes.
4. Contribute to an improved cultural tone for the community through the production, sponsorship, and promotion of cultural activities.

The Scholarship and Research Function

1. Serve as a stimulus to the continuous intellectual development of the faculty.
2. Be aware of and sensitive to the constantly accumulating body of knowledge in the areas of the university's concentrations and aid in its dissemination.
3. Add to the body of technical and professional knowledge by adaption, analysis, synthesis, and evaluation of existing and developing knowledge.
4. Increase the wealth of knowledge through research in the fields of the university's concentrations.

ENROLLMENT

While most of the students come from Wisconsin, almost every state in the Union has been represented in the enrollment at Stout State University. Through the years the enrollment at Stout has been more than national in character. In the past years students have attended from the following countries: Afghanistan, Bolivia, Brazil, British Honduras, Canada, China, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, England, Ethiopia, Finland, Formosa, Germany, Greece, Hungary, Indonesia, Iran, Iraq, Israel, Italy, Jamaica, Japan, Jordan, Korea, Lebanon, Libya, Malaya, Nicaragua, Nigeria, Pakistan, Panama, Paraguay, Philippine Islands, Peru, Sudan, Taiwan, Thailand, Trinidad, Tunisia, Turkey, Vietnam, and West Cameroons.

Stout graduates are teaching in every state in the Union, Canada, Latin America, and also many countries throughout the world.

BUILDINGS AND GROUNDS

Seven large, thoroughly equipped buildings, Harvey Hall, Bowman Hall, Ray Hall, Fryklund Hall, the Memorial Student Center, the Pierce Library, and the Health and Physical Education Center comprise the central plant. A heating plant recently has been added. Plans are now being drawn for a new science-technology building which should be completed in 1967. There are ten residence halls and two home management houses. The grounds include spacious lawns for the women's dormitories, housing units for married students, practice field, tennis courts, and the Burton E. Nelson Athletic Field.

THE LIBRARY

The Robert L. Pierce Library contains nearly 70,000 volumes, and currently receives over 500 periodicals. The greatest strengths of the collection naturally lie in home economics, industrial and vocational education, Stout's historic fields of specialization. As the Stout curriculum broadens, the Library is rapidly expanding its holdings in art, the social and natural sciences, mathematics, engineering, manufacturing and industry. The building seats 270 for study use, and also provides seminar rooms, a small auditorium, and facilities for educational displays. Plans are now being drawn to double the size of the library.

LABORATORIES AND EQUIPMENT

The shops for the teaching of industrial subjects are well-equipped and modern. Ray Hall is devoted exclusively to shops containing complete equipment for elementary and advanced classes in building construction,

woodworking, plastics, and industrial graphics. Bowman Hall contains shops completely equipped for work in printing, power mechanics, and audio-visual aids and photography as well as laboratories and lecture rooms for courses in the arts and sciences. The college carillon is located in the Bowman Hall tower. Fryklund Hall, constructed in 1961, contains metalworking and automechanics shops, electrical laboratories, a general shop, the music department, and classrooms.

The home economics laboratories in Harvey Hall are completely modern and well equipped. Laboratories used for home furnishings, child development, food and nutrition, clothing and textiles, home economics education, and the sciences are housed in this building. Adequate lighting and modern furnishings and equipment allow effective instruction in pleasant and comfortable surroundings. Stout State University home economics laboratories, because of their unique nature and functional arrangement, have attracted hundreds of visitors from the United States and many other countries.

AUDITORIUMS

Two auditoriums provide forums for convocations and student concerts and productions as well as traveling programs and nationally known speakers. One of the wings of Harvey Hall houses a modern auditorium with a seating capacity of 800. The Health and Physical Education Center includes a fieldhouse auditorium which will seat in excess of 3,000.

HOME MANAGEMENT HOUSES

Two thoroughly modern and fully equipped home management houses, Amon House and Michaels House, provide all conveniences and accommodations desired in buildings of this type. Each house contains living room, kitchen, laundry, and the director's living quarters in addition to comfortable, well-lighted rooms.

RESIDENCE HALLS

Five residence halls are provided for women. Bertha Tainter, Jeter, Callahan, and Eichelberger Halls are located on spacious grounds overlooking Lake Menomin. Mary A. McCalmont Hall is situated in the new part of the campus. The reception rooms and student living quarters are all comfortably and attractively furnished. The dining room in Tainter Hall serves carefully planned meals to all dormitory residents in that area. The charge for meals is maintained at as low a rate as possible under the prevailing price structure. Laundry facilities are available at a minimum charge to students living in these dormitories.

Five residence units are provided for men. Fleming and Hovlid Halls are located near Tainter Hall on North Broadway. The new Hansen-Keith-Milnes Complex is located on the south side of the campus near the Health and Physical Education Center. Students' living quarters and reception rooms of these modern structures are all comfortably and attractively furnished.

All nonresident freshmen and transfer students are required to live in the college residence halls. All sophomore students under twenty-five years of age are also expected to live in the residence halls when such accommodations are available.

Rooms are available on the Sunday immediately preceding registration day in the fall. All rooms are assigned for the entire academic year. Each room is furnished with single beds and inner-spring mattresses, pillows, dresser, study table, chairs, study lamp, and bookcase. Sheets, pillow cases, drapes, and bedspreads are supplied. Students are requested not to bring additional furniture, particularly floor lamps. Radios are permitted in the rooms provided the students comply with the regulations for radios. Radio and television are available for general use in the main lounge of each building.

Accommodations for men and women students not living in the residence halls may be procured in the city.

THE TEA ROOM

The Stout Tea Room in Bertha Tainter Hall is used chiefly as a laboratory for classes in applied institution management. Attractive, well-balanced, inexpensive meals are served. The Tea Room is open to students, faculty, and their friends.

THE MEMORIAL STUDENT CENTER

The two-storied Memorial Student Center provides various facilities. On the Lower level are a snack bar, game room, bowling alleys, meeting rooms, and the University Book Store. The south end of the upper level serves as a ballroom and will also accommodate large meetings and banquets. On this level also are the lounge, dining hall, two small dining rooms, the Stout Student Association office, and the offices of the Director of the Student Center, and Food Service Supervisor.

PIGEON LAKE FIELD STATION

Although 150 miles away, the Wisconsin State University system's Pigeon Lake Field Station is an integral part of the Stout campus.

The Field Station is located in southeast Bayfield County just west of

Drummon, Wisconsin, and is used during the summer for special courses in Biology, Art, Outdoor Education and Recreation.

Courses at Pigeon Lake Field Station carry Stout residence credit and work is offered on both the undergraduate and graduate levels. Information on the summer schedule may be obtained by writing to Board of Regents, Wisconsin State Universities, Madison 2, Wisconsin, or Director of Summer Session, Stout State University.

REGULATIONS CONCERNING AUTOMOBILES

Students should not bring their automobiles to the college campus for regular use. Married students and commuters are exempted. The added expense involved in operation, the absence of convenient parking facilities, and the hazards of the automobile form the basis for this recommendation. A student owning an automobile would have difficulty obtaining a student loan. A freshman student on probation may not have an automobile on campus.

If a student must operate an automobile, however, certain regulations must be observed.

1. The automobile must be registered in the Office of the Dean of Men. A student who operates an automobile for more than two weeks and who fails to register the vehicle may be suspended from college.
2. Possession of a drivers' license, coverage by liability insurance, approval of the automobile for mechanical safety when inspection is requested, and parental consent for a student who is a minor form other basic requirements for automobile operation.

COLLEGE ATTENDANCE AND MILITARY OBLIGATIONS

Menomonie maintains a unit of the Wisconsin National Guard, with headquarters in the armory located adjacent to the campus. Many students attending Stout belong to this unit.

It is possible for a man who joins a national guard unit and who then attends that unit's weekly drills to be exempt from the selective service. A student who belongs to another guard unit within Wisconsin can continue his drill in Menomonie and still maintain the military status which he had while at home. Persons in national guard units in other states can make somewhat similar arrangements. All of the aforementioned persons will be permitted under written regulations to complete their college education.

Not only can a man fulfill his military obligations in this way, but his unit's weekly drill periods make it possible for him to earn a minimum of \$12.00 per month.

ACADEMIC INFORMATION

ADMISSION PROCEDURES

Application for admission forms may be received from the Admissions Office. These forms should be filed with the Admissions Director as early as possible before the intended date of enrollment. High school seniors who plan to enroll are encouraged to file application for admission forms during the early part of their last semester of high school attendance. These forms include a health examination form, housing application and a \$20.00 housing deposit, as well as the application for admission itself, which contains a certified record of high school work and a recommendation by the high school principal. When students apply for admission before high school graduation, a separate form containing the last semester's record is obtained from the high school after graduation. Acceptance to the University does not become final until this record is received. All applicants for admission are required to participate in the American College Testing (ACT) program. The results of these tests are of great value to the individual, the high school, and the college in the development of appropriate educational and vocational goals. The ACT program provides scores in English, mathematics, natural science, and social science. A composite score is also provided. Students who have not taken the ACT prior to their college enrollment will be required to do so as a part of registration. The required fee will be assessed.

ENTRANCE REQUIREMENTS

Students admitted to Stout consist of three groups:

1. Those who have graduated from an approved high school with a satisfactory record.
2. Those who have submitted evidence of studies pursued successfully in another institution of higher learning.
3. Those who qualify as adult special students.

HIGH SCHOOL GRADUATES

Entrance requirements for high school graduates are as follows:

1. Graduation from a legally established public or private high school with 16 units of work. (A unit represents five class periods per week in one field of study for a school year of 36 weeks.)
2. Recommendation that the student be admitted by the principal of the high school.
3. Rank in upper three-fourths of the graduating class.
4. A minimum of nine units of credits from the following fields:

English (a minimum of three credits), speech, foreign language, natural science, history and social science, and mathematics.

5. Students who do not meet the requirements outlined in Items 3 and 4 above may become eligible to be admitted for the fall semester by attending and establishing a satisfactory record in the university's summer session.

TRANSFER STUDENTS

As Stout curricula require both breadth of academic and professional courses and a heavy concentration in a highly specialized field, students who expect to graduate from the university are advised to enter during the freshman year. It is difficult for students to complete a four year curriculum in four years if they enter after the sophomore year. Those who attend Stout from the outset of University attendance attain a better balanced program.

If a student has attended any other institution of higher learning, a transcript of his record at that college should be filed with the Admissions Examiner at least a month prior to the opening of the session the student desires to enter. Such transcripts are in addition to the regular application for admission forms. College transcripts are required as an evidence of good standing even if the student earned no credit or if he desires no transfer of credit. Failure to declare previous college attendance may result in loss of credit and suspension. Also required is a Personal Reference Request form from the Dean of Men or the Dean of Women at the college or university from which the applicant is transferring.

Credits earned in accredited institutions of higher learning and carry a grade of "C" or better are accepted so far as they fit into the curriculum which the student selects at Stout. Correspondence credits, together with other extension credits, may not exceed one half the number of credits required for graduation. Special permission must be obtained by students from the dean of the school concerned before taking correspondence courses intended for transfer.

Students who are ineligible to return to a college last attended will not be considered for admission to a Wisconsin State University during the next regular semester following such ineligibility. Students desiring to transfer to the Wisconsin State Universities from other colleges will have the same status relative to admission and retention as in the college last attended.

ADULT SPECIAL STUDENTS

Adults over the age of 21 may be admitted even though they have not completed high school if scholastic success and appropriateness of the

offerings of the university are indicated by tests and interviews conducted at the university. Those who expect to enter as adult specials should arrange with the Dean of Student Services for such testing and interviewing well in advance of the term for which entrance is desired.

SCHOLARSHIP STANDARDS

Credit is expressed in semester hours. A credit of one semester hour represents the satisfactory completion of the work of one recitation a week for a period of one semester. A course having five recitations a week will therefore give five semester hours of credit. Two hours of laboratory work will count as one credit hour.

In order to receive a degree, the student not only must gain the required number of credits in the course which he is pursuing, but also must attain a certain standard of scholarship. This standard is fixed by grade points as credits. Grade points are apportioned as follows:

- A 4 grade points per semester hour credit—Excellent
- B 3 grade points per semester hour credit—Good
- C 2 grade points per semester hour credit—Average
- D 1 grade point per semester hour credit—Poor
- F 0 grade points per semester hour credit—Failure

A student's grade point average is computed by dividing the number of grade points earned by the number of credits attempted.

Inc. (incompletes) are given only in cases in which the absence incurred has been due to situations over which neither the student nor the instructor has any control. To secure an incomplete, a student must have a passing grade in the course before the absence. A failure will be recorded if the incomplete is not removed within one calendar year.

All program changes must be approved by the student's adviser. The grade WD will be recorded for courses from which a student is permitted to withdraw within the first two weeks of a quarter course and within the first four weeks of a semester course. The grade WP will be recorded if withdrawal occurs after the above stated periods and the student is passing at the time he secures permission to drop the course. The grade WF will be recorded if the student is failing at the time of withdrawal and the number of semester hours of credit is included in computing the student's grade point average.

STUDENT PROGRAMS

Students whose total point average is 3.5 or better may enroll for a maximum of 20 credits. Students whose grade point is better than 3.0 but less than 3.5 may register for a maximum of 18 credits. Students whose average is less than 3.0 may register for not more than 17 credits except

with special permission of the dean of the appropriate school. It is recommended that students on probation be advised to carry a reduced program.

INDEPENDENT STUDIES

Special opportunities are provided by some departments for individual study, particularly in those phases of the field of specialization not provided for in formal courses. Through Independent Study, a student may assume a greater responsibility for his own learning than through a formal course. At least 54 clock hours of study are considered necessary for one semester hour of college credit.

The same conditions for registration apply as for any other course. In addition, approval for Independent Study must be obtained. An application for an Independent Study course is available for this purpose. A brief outline of the proposed study must be presented at the time approval is requested.

The quality of the study will be evaluated by the instructor directing the study. The form and style of the report should be in agreement with the thesis manual currently approved by the Graduate Committee and in agreement with the standards of the English Department.

HONORS COURSES

Several honors courses are offered each year. An honors course is intended for students who present evidence of mastery of basic concepts of the subject. Additional opportunities for enrichment are provided.

ATTENDANCE

Each student is expected to attend all of the classes for which he is scheduled. Attendance on the school day before and after vacation is important. A student who is absent will be reported, and unless the absence is excused, will forfeit one grade point for the semester in which the unexcused absence is reported. Serious illness is of concern to the university and should be reported immediately to the university nurse.

Juniors and seniors are expected to comply with class attendance requirements announced by each instructor and to clear their absences directly with the instructor of each class.

Freshmen, sophomores, new transfers and probation students are subject to special regulations. When the student's unexcused absences exceed by one the number of credits in the course, the report will be sent to the Student Services Office, the student will be notified that he

has been dropped from the class and will automatically receive an "F" for the course.

Classification of students as recorded in the Registrar's Office shall be used for implementing attendance regulations.

REQUIREMENTS FOR GRADUATION

The semester credit hours required for graduation vary slightly with the major and are stated under the course of study for each major. Total grade points must be twice the number of semester hours. The normal time required for the completion of these requirements is four years and results in the awarding of the Bachelor of Science degree. Meeting the requirements for graduation is a responsibility of the student.

The minimum residence requirement is 32 semester hours and 64 grade points to be earned in at least 36 weeks of attendance at Stout State University. The last year of credit must be earned in residence at Stout State University. Candidates for degrees are required to attend the commencement exercises. Registration with the Placement Office is a requirement for graduation.

GRADUATION WITH HONORS

In each graduating class, the selection of students for high distinction and distinction is based upon scholarship, personality, promise of success, social attitudes and accomplishments, and contribution to the University. A student must have a minimum grade point of 3.0 and have earned at least 60 semester hours of credit in residence one semester prior to graduation to be considered for honors. The high distinction group is not more than 5% of each of the graduating groups, and the distinction group not more than 10%. These honors are indicated on the commencement program and are made a part of the student's permanent record.

FINANCIAL INFORMATION

FEES

Since the catalog must be prepared far in advance, all fees, room and food rates, and other charges are subject to change without notice in this catalog. Fees are payable registration day at the beginning of each semester and summer session. The fee receipt is to be retained by the student. Students are not admitted to classes without this receipt.

FEES FOR ONE SEMESTER

Incidental Fee	\$105.00
Student Activity Fee (including membership in Student Center)	31.00
Textbook Rental Fee	8.00

TUITION

There is no tuition charge for residents of Wisconsin. The tuition for nonresidents is \$170.00 per semester. A nonresident is defined as any student who has not been a resident of the state for one year preceding his first admission to Stout State University.

STUDENT ACTIVITY FEE

All students are members of the Stout Student Association. The student activity fee entitles every student of the college to admission to all athletic events, to all concerts given by the student musical organizations, to productions by the dramatic organization, to lyceum and assembly programs sponsored by the college, and to all student dances given under the auspices of the student association. The fee also covers the cost of subscription to *The Stoutonia*, the student weekly newspaper; *The Tower*, the college annual; class membership; and membership in the Student Center. The activity fee also covers a portion of the cost of first-aid service and treatment for minor illnesses by the college physician.

TEXTBOOK FEE

Textbooks are supplied to undergraduate students on a rental basis at the rate of \$8.00 per semester.

INTERNATIONAL STUDENT FEES

International students are required to pay a small fee to partially defray the expenses of the special international program set up by the college. This program includes academic advisement, assistance in orien-

tation and personal adjustments, and field trips. The fees are \$25.00 per semester or \$15.00 per quarter or summer session.

DORMITORY ROOM AND FOOD COSTS

Currently, room and board (20 meals per week) in dormitories is \$327.00 per semester when paid in advance.

The deposit of \$20.00 required at the time of room reservation is applied to the total cost. Full payment of room and board is required at the time of registration. However, where a hardship would result from complete prepayment, special arrangements may be made for installment payments. Such a request must be approved by the Dean of Men or the Dean of Women. When paying on the installment plan, \$204.00 is due at the beginning of the semester, with \$66.00 due at the beginning of each six-week period, the three payments totaling \$336.00. Penalty for all late payments, whether by semester or by installments is \$5.00.

LABORATORY AND SHOP COSTS

In general, all materials for laboratories and shops are furnished. However, in a few courses the student furnishes material for a project which is to be his own personal property when completed.

PART-TIME STUDENTS

All resident students taking courses aggregating seven or fewer semester hours of credit shall be classified as part-time students. Those students taking courses aggregating fewer than eight hours of credit shall pay an incidental fee of \$12.50 per credit (resident student) or \$35.00 per credit (non-resident student). The textbook fee for part-time students is \$.75 per hour of credit.

SPECIAL FEES

Diploma Fee	\$7.50
Special Examination Fee (taken in special cases only)	2.00
Commencement regalia rental based on cost.	

REFUNDS ON FEES

Withdrawal during first and second weeks	80%
Withdrawal during third week	60%
Withdrawal during fourth week	40%
Withdrawal during fifth week	20%
Over five weeks	No refund

Students boarding in the dormitories are entitled to a refund of whatever amount has been advanced for board beyond the date when notice of withdrawal is received.

Refund for advance payment of room rent in the dormitories is allowed from the date when the room is again rented. Effort is made to get an occupant at the earliest date possible.

THE FINANCIAL AIDS PROGRAM

Financial aids are awarded to students who without such aid would be unable to attend Stout State University. Applications for financial assistance are based upon the applicant's need, scholastic promise, and qualities of leadership. Financial aids are awarded by the University Financial Aids Committee.

APPLICATION FOR FINANCIAL AID

Students may obtain the appropriate financial aids form by writing to the Financial Aids Counselor. The following guide-lines govern the awarding of financial aids:

1. Students may request financial aid only after they are fully accepted by the Admissions Department
2. Scholarship applications should be returned prior to May 1
3. Most financial assistance is awarded by the semester or by the academic year
4. Approximately 280 scholarships are awarded each year; however, only one scholarship is awarded per student
5. Awardees of financial assistance (scholarships, loans, and part-time employment) are required to make a new application each year financial aid is desired

SCHOLARSHIPS AND GRANTS-IN-AID

LEGISLATIVE SCHOLARSHIPS

Wisconsin Statutes authorize the granting of scholarships to high school graduates of public or private schools under two type of conditions:

1. Class A scholarships go to students who rank first in scholarship in a Wisconsin high school enrolling fewer than 250 students, who rank first and second in a high school enrolling 250 to 750 students, and who rank first, second, and third in a high school enrolling 750 or more students. In case the person or persons eligible for scholarships under these conditions do not elect to enroll at a Wisconsin State

University, the scholarship may be granted to graduates who are the next highest in scholastic rank.

2. Class B scholarships go to students who graduate from Wisconsin public or private high schools and who have good scholastic promise, financial need, and leadership ability. The number of scholarships granted under this category is limited to fifteen per cent of the previous year's total freshman enrollment.

In both types of scholarships, the award equals the amount of the incidental fee, only freshman students qualify, and the second semester's grant requires at least a C average during the first semester of attendance.

OTHER LEGISLATIVE SCHOLARSHIPS

State grants are available for out of state, foreign, vocational rehabilitation, American Indian, blind, and deaf students. Needy and worthy non-resident students may have the out-of-state tuition fee waived. The number of these waivers is limited to eight per cent of the number of non-resident students enrolled during the preceding year. Other students listed in the above heading may also be granted scholarships equivalent to the incidental fee, and in the case of foreign students the non-resident tuition fees as well. American Indians may also receive some assistance for board and room. High scholarship, financial need, and qualities of leadership are required of all recipients.

GENERAL MOTORS SCHOLARSHIP PROGRAM

Stout is one of about 450 colleges which has been selected by General Motors to participate in its scholarship program. One award is made annually to an outstanding freshman. The award will be renewed for the other undergraduate years provided the student continues to meet the highest standards. If the holder of the award withdraws, or fails to maintain high standards, the scholarship is awarded to another qualified classmate. The amount of the award will range from an honorary award of \$200.00 up to an award of \$2,000.00 per year, depending upon the financial need of the individual.

OTHER SCHOLARSHIPS AND GRANTS

Due to the generosity and loyalty of many organizations, businesses, and individuals a number of scholarships, grants, and loans become available to Stout students. Prospective students or students currently enrolled do not apply for specific scholarships, grants, or loans, as above stated, but are selected for the most appropriate award on the basis of the information provided on an application for financial aid form which is available upon request. Usually only one scholarship or grant is given to

one person. Those who have made funds available for student financial aid include:

Alex's Pizza House. Two scholarships; open to all classes.

American Federation of Labor Scholarship. Recipient selected by Wisconsin State Council of the United Brotherhood of Carpenters and Joiners of America.

The Automobile Manufacturers Association Award. A \$2,500.00 scholarship for automotive mechanics majors.

The Catherine Skeels Scholarship Fund. Selected from home economics juniors.

The Dora Rude Award Fund. A home economics junior selected annually for a scholarship.

The Dunn County Home Economics Demonstration Council Scholarship. A \$100.00 scholarship limited to a Dunn County resident who wishes to study home economics; selected by the organization.

Elgin State Bank, Elgin, Minnesota. A \$300.00 scholarship for a resident of the Elgin School District.

Farmers State Bank, Eyota, Minnesota. A \$300.00 scholarship for a resident of the Dover-Eyota School District.

George Wilson LaPointe, Jr. Memorial Scholarship Fund. Woodworking Students given preference.

The Gisholt John A. Johnson Foundation of Madison, Wisconsin. A \$500.00 scholarship and loans to metal majors.

Leonard M. Hovlid Fund. A legacy by a 1916 alumnus.

Margaret Micheels Memorial Award. A scholarship for an American student who provides meritorious service to foreign students.

Mary J. Eichelberger Scholarship. Income used for various types of aid.

Phi Omega Beta Award. Award used for various types of aid.

STUDENT LOANS

Financial assistance in the form of student loans is available to scholastically promising students from families of limited resources.

THE NATIONAL DEFENSE STUDENT LOAN FUND

To be eligible for a National Defense Student Loan a student must be accepted or enrolled at Stout; be in need of financial assistance; maintain a minimum cumulative grade point average of 2.25 or rank in the upper 40% of the high school graduating class. Eligible students may be granted up to \$700.00 for each year while attending Stout. The amount of the loan is determined by the availability of funds and the student's financial need. Repayment must be completed within a ten-year period

at an interest rate of 3% per annum, to begin one year after the borrower ceases to be a student. Up to 50% of a loan (plus interest) will be forgiven if the borrower becomes a full-time professional teacher. Teacher cancellation is to be at a rate of 10% a year up to five years.

Menomonie business firms, individuals, and service organizations each provide \$100.00 to make \$1,000.00 of NDEA loan funds available to worthy students. Contributors are Bank of Menomonie, Clare Talen, The Fair Store, First National Bank, Jones Menomonie Pharmacy, Kenyon S. Fletcher, Knapp Creamery Company, Inc., Kraft State Bank, M. & L. Motor Supply Company, Menomonie Rotary Club, Red Cedar Clinic, Robert L. Pierce, Sanna Dairies Foundation, Sigma Tau Gamma, Thorp Finance Foundation, Inc.

WISCONSIN STATE STUDENT LOAN FUND

The Wisconsin State Student Loan is available to students who are residents of Wisconsin; are in need of the loan assistance; have a minimum high school grade average of "C". Interest accrues at a rate of 1% per annum while the student is in attendance at Stout. Thereafter, and during the repayment period, the interest rate becomes 5% per annum. Repayment begins after the student graduates or leaves school. The maximum amount of this loan for an academic year is \$750.00 and \$250.00 for the summer session.

THE STOUT STATE UNIVERSITY LOAN FUND

This loan fund is supported by gifts received from alumni, faculty, civic leaders, Menomonie area businessmen, and the Stout Development Association, Inc. This loan fund provides for short-term emergency loans to students. The maximum amount loaned is \$100.00 and repayment must begin within 90 days.

PART-TIME EMPLOYMENT

THE WORK-STUDY PROGRAM

The Federal Economic Opportunity Act provides employment for qualified students. To be eligible for work-study financial assistance at this university, the student must be from a low income family; a citizen or national of the U.S.; need the job in order to study at this university; and be capable of maintaining acceptable academic grades. A student employed under this program may work a maximum of 15 hours per academic week and 40 hours a week during other periods such as vacations and summer recess. A number of work-study jobs are available to qualified students.

OTHER CAMPUS EMPLOYMENT

Varied competences are required by academic departments, maintenance departments, food services, recreational center, and other campus agencies. Students are placed with regard to their skills and ability to fulfill these requests.

OFF-CAMPUS EMPLOYMENT

A number of job opportunities are available to students by Menomonie area employers. Academically promising students who meet the specific job requirements of an employer are referred to the employer for a personal interview.

GRADUATE ASSISTANTSHIPS

A limited number of graduate assistantships are awarded to students accepted for graduate study. Students seeking a graduate assistantship should request an assistantship application from the dean of the school in which he wishes to graduate study, and return the completed application at least two months before the term which he wishes assistantship work. Assistantships are awarded with regard to the applicant's technical experience and qualifications to perform needed assistantship work.

STUDENT SERVICES

A major aim of Stout State University is to assist students in making maximum progress toward suitable, achievable, and satisfying educational, vocational, personal, and social goals. To facilitate the accomplishment of this aim, the non-instructional and non-business areas of the college administration are organized into a program of Student Services.

These services include selection and retention of students, orientation of new students, personalized registration, counseling, testing, health services, housing, food services, personnel records, co-curricular activities, financial aid (including part-time employment), remediation of scholastic deficiencies, stimulation of student religious activities, research, placement and follow-up. The student services program seeks to supplement the institutional offerings by providing both group and individual experiences which focus attention on self-understanding, personal growth, and wholesome citizenship in a democratic setting. Every possible effort is made to foster a friendly democratic atmosphere in all personnel work so that personal integrity and group morale will be preserved.

FRESHMAN WEEK

A major portion of the opening week of each school year is devoted to orientation activities for the students who enter the college for the first time. During this period, these students follow a schedule which acquaints them with the college as an intellectual community, the campus and its buildings, the city of Menomonie, their fellow students and faculty members, their class schedules, the church of their choice, and the customs and aims of Stout State University. Among the happiest and most worthwhile phases of Freshman Week are the contacts that new students make with each other and with the upperclassmen and the staff members. Students who enter wholeheartedly into this program will find themselves ready to begin effective and happy participation in college life. A testing program is also included during Freshman Week so that the counselors may assist these students more effectively.

ADVISERS

The foundation of the student personnel work is laid in the day-to-day contacts between teachers and students. The Deans of the Schools of Home Economics, Applied Science and Technology, and Liberal Studies administer the programming of students. The deans are assisted by faculty advisers.

At entrance, each Home Economics major is assigned to a faculty member who serves as her adviser during her stay at the college. The

adviser assists the student with the preparation of a program of studies prior to each registration period, as well as with other problems. Referrals are made to the Dean of the School of Home Economics, or to the University Counseling Center, if the student and the adviser so decide.

Students in the School of Applied Science and Technology are assigned to advisers for the first two years of college. At the end of the sophomore year, or as soon as the student has selected his areas of concentration, he is assigned a faculty adviser in the field of his major interest. All advisers assist their advisees with programming prior to each registration period. Referrals are made to the Dean of the School of Applied Science and Technology or to the University Counseling Center whenever the need for additional counseling develops.

Art majors are assigned advisers who are staff members in the Department of Art. Students who do not intend to be graduated from Stout State University are assigned an adviser in their fields of interest. The advisers assist students in programming. Referrals are made to the University Counseling Center when the need arises.

UNIVERSITY COUNSELING CENTER

A University Counseling Center, located in Room 16 of Harvey Hall, is maintained to help students obtain the maximum benefit from their university career and to develop to the full limit of their potential. The services of the Counseling Center include vocational guidance, career information, assistance with academic problems and study habits, specialized testing, and personal counseling. Students who seek assistance are given the opportunity to work with a counselor in a confidential relationship in which they can explore their aspirations, interest, aptitudes, abilities, personal characteristics, and self-understanding.

Counseling is normally provided through appointment but for the student who feels a need to be seen immediately, counseling can usually be obtained without a prior appointment. There is no charge for counseling.

Students desiring to enroll at Stout State University who are in doubt about their abilities and goals are encouraged to make an appointment to visit the Counseling Center.

SOCIAL LIFE

The Dean of Men and the Dean of Women, and the Director of Student Activities cooperate with the Student Senate and the Stout Student Association officers in planning and administering the social program of the college. Students who desire assistance in regard to housing, social adjustment, participation in activities, orientation to college customs and regulations, and similar matters are invited to seek the help of these persons.

VETERANS SERVICE

Special assistance is given veterans by the Dean of the School of Applied Science and Technology and by the Registrar. These offices provide veterans with current information on veterans' affairs and maintain liason between the Veteran's Administration and the university.

INTERNATIONAL STUDENT ADVISEMENT PROGRAM

Students from foreign countries attend our college in substantial numbers. As a majority of these students are men, the Dean of the School of Applied Science and Technology and the Adviser for International Students assume much of the responsibility for the administration, orientation, and general supervision of foreign students programs. Other faculty members assume responsibility for the social program for foreign students, for the administration of appropriate language tests, and for housing. The International Relations Club and the People to People Program provide an opportunity for foreign students to contribute to cultural exchange opportunities and become well acquainted with students. Menomonic organizations, as well as groups in neighboring communities, invite foreign students to appear before their membership and to be guests in the homes of members.

PLACEMENT

During the senior year, all students complete records for use by the Placement Chairman. The placement office is maintained to serve seniors, graduates, and employers. This service is dependent upon the cooperation of the graduates in maintaining up-to-date credentials. Due to its national reputation in home economics, industrial education, industrial technology, guidance, and audio-visual communications, coupled with the critical shortage of professional personnel in most of the areas for which curricula are offered, Stout State University has maintained an enviable placement record. The Placement Chairman brings to the attention of properly qualified seniors and graduates, vacancies which employers report, realistic information regarding trends in supply and demand, and data about salaries and conditions of employment.

Alumni are invited to register for placement by requesting a special form designed for this purpose.

STUDENT ACTIVITIES

Stout State University offers a wide range of student activities which are coordinated by the Director of Student Activities. The college encourages all students to participate in campus organizations, for these contribute to better citizenship and to a more satisfying personal, family, and social life.

All students are members of the Stout Student Association. Within that organization there is a strong student government, which consists of three parts: (1) Five executive offices, elected by the student body; (2) The Student Senate, a policy-making group consisting of fifteen students and three faculty members; and (3) The student court which handles disciplinary problems.

THE MEMORIAL STUDENT CENTER

The Director of Student Activities and the Board of Governors of the Memorial Student Center have general supervision of the center, are concerned with policy-making, and cooperate in the development of activities at the center.

The Board is composed of representatives of the four undergraduate classes, the graduate division, the Interfraternity Council, Panhellenic Council, and the Student Senate. The Dean of Men and Dean of Women are also members. Ex officio members include the President of the Stout Student Association and the Director of Student Activities.

PUBLICATIONS

The Stoutonia is the student weekly newspaper. It offers opportunity for experience in printing as well as writing, photography, editing, and advertising. *The Tower*, the college annual, is also a student product. Both publications are financed in part by Stout Student Association funds and are distributed to all students.

ATHLETICS, SPORTS, AND RECREATIONAL ACTIVITIES

Intercollegiate athletics are under the direction of the faculty committee on athletics. Stout State University is a member of the Wisconsin Athletic Conference and is subject to the rules of this conference. The university is a member of the National Association of Intercollegiate Athletics and is committed to the enforcement of its rules and regulations. The university is represented in intercollegiate teams in baseball, basketball, football, golf, gymnastics, tennis, and wrestling.

The athletic program at Stout State University exists because of the contributions it makes to the total educational program. For the partici-

pant it provides general educational values and constitutes a laboratory for the preparation of future high school athletic coaches.

The "S" Club is a campus organization for men who have earned letters in intercollegiate sports.

A varied program in intramural sports and swimming is offered for both men and women.

DRAMATICS

The Zeta Beta Chapter of Alpha Psi Omega, a national dramatic fraternity offers several plays a year. Membership includes those who participate in the backstage production as well as in acting.

FORENSICS

The opportunity for intercollegiate forensic competition in oral interpretation, oratory, extemporaneous speaking, after-dinner speaking, discussion and debate is offered to both men and women. The Wisconsin Kappa Chapter of Pi Kappa Delta, a national forensic fraternity, sponsors an invitational tournament and other events throughout the year.

MUSIC

Membership in the Stout Concert Band and in the Stout Symphonic Singers is open to all qualified students enrolled in the university.

Band activities include concerts, parades, football shows, pep band appearances, and concert tours.

Oratorios, concerts and concert tours are the highlights of the chorale activities. Glee Club, vocal and instrumental ensembles and solo work add to the musical performance opportunities on our campus. Courses are also offered in theory and in appreciation of music.

HONORARY PROFESSIONAL ORGANIZATIONS

Phi Upsilon Omicron is a National home economics professional fraternity. Epsilon Pi Tau is an international honorary professional fraternity in industrial arts and industrial vocational education.

PROFESSIONAL AND EDUCATIONAL CLUBS

Organizations specifically for fifth-year students are the Graduate Men's Club and Graduate Women's Club. The Arts and Crafts Club, Dietetic Club, Home Economics Club, Metals Guild, Radio-Electronics Club, Stout Typographical Society, Student National Education Association, and the Stout Society of Technology offer opportunities for professional growth.

INTERNATIONAL CONTACTS

The International Relations Club, a student organization open to students and faculty, offers an opportunity to discuss current world problems. Stout has in regular attendance many students from other countries who contribute to the exchange of ideas through the activities of the club.

The People-to-People program, introduced in the spring of 1963 under the auspices of the Stout Student Association, is an inter-campus movement designed to help orient foreign students to American life and to help American students develop contacts with visiting students more easily.

OTHER INTEREST GROUPS

Synchronized Swimmers, Rifle Club, Al Fresco Club, 4-H club, and the Young Democrats present opportunities for experience in those specific fields.

SOCIAL FRATERNITIES AND SORORITIES

The social fraternities and sororities on the Stout Campus contribute to the social life and experiences of their members and of the college as a whole. The sororities are Alpha Phi, Alpha Sigma Alpha, Delta Zeta, and Sigma Sigma Sigma; the fraternities are Chi Lambda, Kappa Lambda Beta, Phi Omega Beta, Phi Sigma Epsilon, Sigma Pi, and Sigma Tau Gamma.

SERVICE

Alpha Phi Omega is a national service fraternity for men interested in scouting. The Young Women's Christian Association and Mid-Termers are service and social organizations for the women on campus and the mid-year entrants, respectively. Gamma Sigma Sigma is a service organization for women.

RELIGIOUS ORGANIZATIONS

Student groups from the various churches in Menomonie are organized and carry on active programs in their respective churches. They are the Baptist College Fellowship, Canterbury Club (Episcopal), Chi Alpha (Full Gospel Tabernacle), Gamma Delta (Lutheran), Lutheran Student Association, Newman Club (Roman Catholic), Wesley Fellowship (Methodist), and United Campus Christian Fellowship (Congregational, Evangelical United Brethren, and Methodist). The local interdenominational group, affiliated with the Inter-Varsity Christian Fellowship, is Stout Christian Fellowship.

The Inter-Religious Council consists of three representatives from each of the above groups. Its aims are to stimulate religious development, coordinate student religious activities, and promote an understanding among clergymen, faculty members, students, and parents of the relationship that should exist between higher education and religion in a democratic society. It is the policy of the college to respect the religious preferences of all students and yet to prevent conflict with the principles of separation of church and state, and of academic freedom. Encouragement, not sponsorship, is the essence of the program.

SUMMER SESSION

The 61st and the 62nd summer sessions of Stout State University will be held during the summers of 1966 and 1967. The summer sessions open two weeks after the close of the second semester in June.

The regular summer session is eight weeks in length. This enables a graduate student to fulfill requirements for a Master of Science degree in four summer sessions. The summer session bulletin issued in April gives full information on courses and schedule.

Summer session classes are designed to meet the needs of various groups of people. Former students and graduates have an excellent opportunity for taking advanced work. Both graduate and undergraduate work will be offered. Supervisors and teachers of industrial education or home economics can strengthen their work in techniques or in the field of education. All persons interested in specific studies related to work in industrial and homemaking courses will find much of interest in the summer session schedule. The Wisconsin State Board of Vocational and Adult Education through the use of federal teacher training funds is cooperating with Stout State University in the preparation of teachers for schools of vocational and adult education. The summer session carries an excellent range of courses required for vocational classification.

Special lectures and conferences are included in the summer session program. It has been the policy of the college to secure special speakers particularly well qualified to handle the larger social problems of the present time. Special emphasis is given to the relationships and responsibilities which home economics and industrial education teachers have in the solution of these problems.

Credit granted for courses taken during the summer session will apply on course requirements where such courses are in the curriculum leading to the degree. The time assigned to summer session courses is increased in sufficient amounts to permit students to carry the courses for the same credit as in the regular session.

The April issue of the *Stout State University Bulletin* is the annual summer session bulletin. This contains general information on the summer session, description of courses, and the summer session class schedule including both undergraduate and graduate work. It will be sent on request.

COURSES OF STUDY

SCHOOL OF APPLIED SCIENCE AND TECHNOLOGY

THE FUNCTIONS OF THE SCHOOL OF APPLIED SCIENCE AND TECHNOLOGY

Each subdivision has a responsibility to contribute to the overall functions of the university. The individual subdivisions (schools, departments, and individuals) are more deeply involved with certain functions and have unique contributions to make to the total development.

The School of Applied Science and Technology attempts to fulfill the following functions:

The Education Function

1. Aid students in interpreting industry and technology.
2. Develop a degree of skill in the safe and efficient use of tools and machines in the various areas of industrial activity.
3. Offer experience in the solving of problems with special emphasis on technical problems.
4. Develop an understanding of and a sensitivity to the basic structure of knowledge in technology through principles of tools and machines, materials, structures and constructions, systems and procedures and personnel relationships.
5. Develop professional competence in analyzing, synthesizing, organizing, and communicating ideas.

The Service Function

1. Aid schools in upgrading programs of industrial education through such devices as consultation on professional and technical problems, evaluation of programs and in-service education of teachers.
2. Provide service to business and industry through such means as testing and evaluation of products and services, adaptation of products for special purposes, and consultation on new ideas.
3. Promote the profession through active participation in professional organizations at all levels and by writing for professional publications.
4. Provide leadership in the areas of the school's specialties in philosophy and objectives, curricula, physical plant, and methods of organization.

The Research and Scholarship Function

1. Be aware of and sensitive to the accumulated and accumulating body of knowledge in education and technology and to constantly study it.

2. Add to the body of technical and professional knowledge through basic research into new concepts, procedures, and materials.

GENERAL INFORMATION

The School of Applied Science and Technology offers three four-year bachelor's degree programs, each designed to prepare graduates for a particular group of positions.

Bachelor of Science with a Major in Industrial Education. Students completing this degree are qualified to teach industrial arts in junior and senior high schools. Supplementary licenses to teach other subjects may be obtained by completing teaching minors. The graduate may become eligible to teach trade and industry vocational courses at the high school level by meeting the requirements of the Wisconsin Department of Public Instruction Vocational A or B license.

Bachelor of Science with a Major in Vocational Education. Students completing this degree are prepared to teach in vocational schools and technical institutes, and will be eligible for certification by the Wisconsin State Board of Vocational and Adult Education. Supplementary licenses to teach other subjects may be obtained by completing teaching minors.

Bachelor of Science with a Major in Industrial Technology. Completion of this major prepares graduates for a variety of professional positions in business and industry. Concentrations are available in product development, plant engineering, technical writing, light building construction, production management, packaging, and technical sales and service.

CREDIT FOR INDUSTRIAL WORK EXPERIENCE

Under certain conditions university credit will be granted for experience in industry. In all cases a careful evaluation will be made of the appropriateness of such experience to fulfill degree requirements and vocational objectives. Credit may be awarded for: 1. previous trade or occupational experience; 2. university supervised industrial work assignments; 3. special schools conducted by industry.

1. Previous Trade or Occupational Experience. A maximum of 24 semester hours of technical credit may be earned through examination by those students who have completed an apprenticeship plus three years of successful journeyman occupational experience. Students with less than this amount (7 years) of experience may request examinations in specific technical courses upon presentation of evidence of appropriate work experience in that area.

Students wishing to receive credit for journeyman experience should first present evidence of the required amount of work to the Dean of the School of Applied Science and Technology. Such evidence should be

presented shortly after the first enrollment to allow special program consideration. If the work experience is deemed satisfactory by the dean, upon the completion of 60 semester hours of credit, an examination will be arranged as follows:

- a. An advisory examination committee from the trade or occupation will be set up. Agencies to be represented on the advisory examining committee will include the State Board of Vocational and Adult Education, employers in the occupation, employees in the occupation, and Stout State University. The examinations will be conducted at Stout State University and will include oral, written, and performance sections.
- b. The University will hold examinations to include written work and performance.
- c. Upon satisfactory completion of such examinations, the advisory committee will be convened for an oral examination. All reasonable expenses for the examination will be borne by the student.
- d. The examining committee will recommend the amount of credit to be awarded to a maximum of twenty-four semester hours.

2. University Supervised Industrial Work Assignments. A student may earn credit in blocks of two credits each to a maximum of ten credits for supervised work in industry under the requirements of I.E. 408, *Industrial Work Assignment*. This credit may be used in one of two ways:

- a. Industrial work experience credits may simply be used as technical electives with approval of the student's advisor.
- b. A four-year program of carefully coordinated on-campus university attendance and off-campus industrial work experience can be scheduled to allow graduation in four years with 40 weeks of work experience included. The program requires attendance at two full summer sessions and work experience during two semesters and one summer. Students must choose this approach by the end of their third semester if graduation in four years is expected.

3. Special Schools Conducted by Industry. Many manufacturers offer specialized, often short term, technical courses. Some of these are suitable for university credit. The following guidelines are used to award such credit:

- a. The student makes all arrangements with the manufacturer offering the course.
- b. Credit is awarded on the basis of one credit for each full week of attendance.
- c. Students must be enrolled and pay fees at the university prior to taking the course.
- d. Approval by the Coordinator of Cooperative Education will be necessary prior to enrollment for credit.

CURRICULUM IN INDUSTRIAL EDUCATION

DEGREE REQUIREMENTS

Total for graduation	130 semester hours
Required in academics	51-52 semester hours
Required in education	22 semester hours
Required in technical work	42 semester hours
Electives in Liberal Studies or Education	14-15 semester hours

Completion of one of the following options (elective credits or Liberal Studies and Education will be used to complete this requirement):

1. A 42 semester hour major in Industrial Education with one 22 semester hour academic minor. Requirements for these minors are described in the departmental course descriptions.
2. A Broad Field Major in Industrial Education consisting of 42 semester hours of technical work with two 15 semester hour academic concentrations. Requirements for these concentrations are listed at the end of the Industrial Education curriculum.

Students qualifying for advanced placement or honors courses will make appropriate substitutions in the requirements listed.

FIRST YEAR

	Sem. Hrs.
English 102a and b, English Composition	6
Education 123, General Psychology	3
Industrial Education 101, Drafting	2
Industrial Education 102, Metalworking	2
Industrial Education 103, Woodworking	2
Industrial Education 117, Printing	2
Mathematics 209, Algebra	4
Mathematics 213, Trigonometry	3
Physical Education 101, Personal Health	1
Physical Education 127, Physical Education	2
Social Science 309, General Sociology	3
Speech 106, Fundamentals of Speech	2

SECOND YEAR

	Sem. Hrs.
English 346, Expository Writing	3
Education 222, Principles of Secondary Education	2
Education 303, Educational Psychology	2
Industrial Education 201, Design	2

Industrial Education 202, Mechanics	2
Industrial Education 203, Plastics	2
Industrial Education 206, Electricity	2
Industrial Education, 290, Industrial Organization	2
Science 115, Inorganic Chemistry	5
Social Science 201, General Economics	3
Speech 223, Essentials of Public Speaking	2
Liberal Studies or Education Electives	4
Technical Elective	2

THIRD YEAR

	Sem. Hrs.
*Education 304, Introduction to Teaching	3
Science 421, Physics—Electricity, Heat, Mechanics	5
Social Science 311, Government	3
Liberal Studies or Education Electives	5
Science Electives	3
Technical Electives	14

FOURTH YEAR

	Sem. Hrs.
Education 401, Introduction to Guidance and Counseling	2
Education 404, Curriculum Development	5
Education 408, Student Teaching in Industrial Education	8
History Elective	3
Liberal Studies or Education Electives	5-6
Technical Electives	8

*Students must make application for admission to the education sequence at this point. Candidates must hold a cumulative grade point average of at least 2.25 and meet the speech and English proficiency requirement as described in the Professional Education section of Course Descriptions.

FIFTEEN CREDIT CONCENTRATIONS FOR
INDUSTRIAL EDUCATION OR VOCATIONAL EDUCATION

COMMUNICATIONS

Fifteen credits selected from the following: E. 102a and b, E. 306, E. 346, E. 410, E. 416, E. 425, Ed. 360, Sp. 106, Sp. 223, Sp. 322 and Sp. 325.

MATHEMATICS

Fifteen credits selected from the following: M. 209, M. 213, M. 250a and b, M. 260a, b, and c, and M. 315a and b.

SCIENCE

Fifteen credits selected from the following: Sc. 115, Sc. 116, Sc. 122, Sc. 208, Sc. 214, Sc. 314, Sc. 316, Sc. 421, Sc. 423, Sc. 425, Sc. 427, Sc. 429, Sc. 431, Sc. 433, Sc. 436, Sc. 438, Sc. 445, and Sc. 446.

SOCIAL SCIENCE

Fifteen credits selected from the following: S.S. 201, S.S. 301, S.S. 309, S.S. 311, S.S. 420, S.S. 450, and one additional course in history.

CERTIFICATION TO TEACH VOCATIONAL TRADE AND
INDUSTRY COURSES AT THE HIGH SCHOOL LEVEL

Many high schools offer vocational courses in trade and industry reimbursed by the federal government under the Vocational Education Act of 1963. Students earning the major in industrial education may become qualified to teach such courses in Wisconsin by meeting the certification requirements outlined in Appendix A. Generally the requirements are met by electing Ed. 402, Principles of Vocational and Adult Education, and obtaining an adequate amount of appropriate work experience.

MANUAL ARTS THERAPY

Students completing an industrial education major may qualify for an additional major in manual arts therapy by serving an internship of nine to twelve weeks in two Veteran's Administration hospitals taking specialized courses and practice in therapeutic psychology.

Manual arts therapists hold positions in hospitals and rehabilitation centers interpreting and implementing physician's work therapy prescriptions; measuring and developing adult patients' work capacities by means of industrial work situations; and participating in case conferences with physicians, clinical psychologists, consulting psychiatrists, and other therapists.

CURRICULUM IN VOCATIONAL TRADE
AND INDUSTRIAL EDUCATION

Students earning the major in vocational trade and industrial education must complete the same requirements as those majoring in industrial education and in addition must meet all requirements for vocational certification. Generally, vocational certification is based on completion of special vocational courses and practical work experience in the field. Candidates who will not be eligible for at least provisional vocational certification upon graduation are not eligible for the curriculum leading to the vocational major.

For courses of study to earn a vocational major refer to those listed for the major in industrial education. Ed. 402, Principles of Vocational and Adult Education, should be selected as an elective and Ed. 408, Student Teaching, will be completed in a vocational school or technical institute. The other requirements are fulfilled by meeting the Wisconsin Certification Requirements for the provisional, and eventually, the standard certificate as outlined in Appendix B.

CURRICULUM IN INDUSTRIAL TECHNOLOGY

DEGREE REQUIREMENTS

Total for graduation	130 semester hours
Required in Liberal Studies	68 semester hours
Required in technical work	27 semester hours
Electives	35 semester hours

Students qualifying for advanced placement or honors courses will make appropriate substitutions in the requirements listed.

FIRST YEAR

	Sem. Hrs.
English 102a and b, English Composition	6
Education 123, General Psychology	3
Industrial Education 101, Drafting	2
Industrial Education 102, Metalworking	2
Industrial Education 103, Woodworking	2
Industrial Education 117, Printing	2
Mathematics 250a and b, Mathematical Analysis	8
Physical Education 101, Personal Health	1
Physical Education 127, Physical Education	2
Social Science 309, General Sociology	3
Speech 106, Fundamentals of Speech	2

SECOND YEAR

Industrial Education 201, Design	2
Industrial Education 202, Mechanics	2
Industrial Education 203, Plastics	2
Industrial Education 206, Electricity	2
Industrial Education 290, Industrial Organization	2
Mathematics 212, Computational Statistics	2
Mathematics 240, Digital Computer Programming	2
Mathematics 315a, Calculus	4
Science 115, Inorganic Chemistry	5

Social Science 201, General Economics	3
Speech 223, Essentials of Public Speaking	2
Electives ³	4

THIRD YEAR

	Sem. Hrs.
English 346, Expository Writing	3
Industrial Education 300, Introduction to Industrial Technology ¹	3
Industrial Education 420, Time and Motion Study	2
Science 208, Organic Chemistry	4
Science 421, Physics—Electricity, Heat, Mechanics	5
Science 423, Physics—Sound, Light	3
Electives ²	13

FOURTH YEAR

	Sem. Hrs.
Education 430, Industrial Psychology	2
Industrial Education 400, Quality Control	2
Industrial Education 410, Production Control	2
Science 425, Physics—Strength of Materials	3
Social Science 414, Labor Problems	2
Social Science Elective ³	3
Electives ²	18

¹Students must make an application for admission at this point, and must have a cumulative grade point average of at least 2.25, meet speech and English proficiency requirements. These requirements are the same as for Professional Education and are described under Course Discriptions for that section.

²A minimum of 16 elective credits is required in technical courses, and a minimum of 11 elective credits is required in Liberal Studies courses.

³Select S.S. 311, S.S. 407, S.S. 410, or S.S. 101a.

SCHOOL OF HOME ECONOMICS

OBJECTIVES OF THE SCHOOL OF HOME ECONOMICS

The School of Home Economics endeavors to help its students attain the following objectives:

1. Values which give meaning and direction in the selection of goals for personal, family, and community living.
2. Good taste, judgment, and discernment in the selection and use of consumer goods and services including housing, food, clothing and other aspects of family living.

3. Abilities to enrich personal and family life through the appreciation and use of the arts, sciences, and humanities.
4. Appreciation of the family as the background for optimum physical, mental, emotional, social, and spritual development for all age groups in the family.
5. Understanding of some of the problems which families may encounter in the achievement of their individual and family goals.
6. Awareness of various human and material resources such as abilities, attitudes, knowledge, material goods, services, time, energy, and money which individuals and families possess.
7. Ability and confidence in managing personal, family and community resources for the achievement of personal, family or community goals.
8. Ability to think critically, analytically, and creatively in the solution of problems relating to family and community living.
9. Proficiency in the performance of homemaking tasks so that they easily and effectively contribute to individual and family values and goals.
10. Ability and willingness to assume responsibilities in local, national, and world communities.
11. Awareness of the contribution of research in all areas of home economics.

GENERAL INFORMATION

The field of home economics is concerned with problems of home and family life, and its studies are based upon an understanding of the natural and social sciences and the humanities. The offerings in the School of Home Economics are planned to meet the student needs in family and community living and to offer a worthwhile training in the many professional fields open in home economics. Graduates of this school are prepared to fill positions in the teaching field, hospital dietetics, food service administration, commercial demonstration work, home economics extension service, and a wide range of home economics positions in business.

Curricula in the School of Home Economics meet the requirements for the degree of Bachelor of Science with a major in Home Economics Education or Home Economics. They also permit the meeting of requirements for teachers' licenses, vocational certification, or requirements of the American Dietetic Association and the National Restaurant Association. Students may specialize in education, dietetics, food service administration, clothing and textiles, or a general program planned individually for those interested in other areas of home economics.

AFFILIATION WITH THE MERRILL-PALMER INSTITUTE

Stout State University carries an affiliation with The Merrill-Palmer Institute in Detroit. The Merrill-Palmer Institute is a private institution with a program devoted to human development and human relations.

Sophomore students who are interested in home economics education, family relations and child development may make application to study at Merrill-Palmer during the second semester of their junior year. A faculty committee selects the students for this program on the basis of scholarship and readiness for intensive study. The Dean of the School of Home Economics administers the program.

CURRICULA IN HOME ECONOMICS

GENERAL REQUIREMENTS

1. Completion of 128 semester hours.
2. A major of 40 semester hours in home economics. Art 106 and Art 334 may be included.
3. Minors as described under each curriculum.

HOME ECONOMICS EDUCATION — PLAN I

Broad field major of 54 semester hours in home economics with no minor.

FIRST YEAR

	Sem. Hrs.
Art 106, Fundamentals of Design	3
Education 123, General Psychology	3
English 102a, English Composition	3
English 102b, English Composition	3
Home Economics 100, Orientation	0
Home Economics 102, Fundamentals of Clothing	3
Home Economics 114, Food Preparation I	5
Home Economics 220, Clothing Selection	2
Physical Education 128a, Physical Education	1
Physical Education 128b, Physical Education	1
Science 122, General Biology	3
Science 214, Physiology and Anatomy	3
Speech 106, Fundamentals of Speech	2

SECOND YEAR

	Sem. Hrs.
Art 334, Interior Design	3
Education 222, Principles of Secondary Education	2
Education 303, Educational Psychology	2

Choose One:

English 216, English Literature (3)	
English 348, American Literature (3)	
English 350, Modern British Writers (3)	3
Home Economics 212, Nutrition	3
Home Economics 218, Clothing	3
Home Economics 230, Food Preparation II	3
Home Economics 315, Textiles	3
Home Economics 318, Family Health and Home Nursing	2
Physical Education 228a, Physical Education	1
Physical Education 228b, Physical Education	1
Science 115, Inorganic Chemistry	5
Social Science 201, General Economics	3

THIRD YEAR

	Sem. Hrs.
Art 206, Introduction to Art	2
Education 304, Introduction to Teaching	3
Education 326, Psychology of Marriage and the Family	2
English 346, Expository Writing	3
Home Economics 308, Meal Management	3
Home Economics 317, Consumer Information	3
Home Economics 334, Personality Growth and Development of the Child	3
Home Economics 428, Family Economics	2
Social Science 309, General Sociology	3
Electives	7

FOURTH YEAR

	Sem. Hrs.
*Education 401, Guidance	2
*Education 402, Principles of Vocational and Adult Education	2
*Education 404, Curriculum Development	5
*Education 408, Student Teaching	8
Home Economics 333, Home Equipment and Applied Physics	3
Home Economics 403, Home Management	4
Home Economics 424, Principles and Practices of Child Guidance	2
Choose One:	
Social Science 407, History of America (3)	
Social Science 410, Modern World (3)	3
Electives	3
No more than a total of six elective credits may be selected in Home Economics or Art.	
*Student teaching may be taken either semester of the senior year. In	

order that the student may be free to teach in an off-campus school during second quarter of the semester, the courses starred above must be taken concurrently. Application for the teacher education program must be made by the second semester of the second year. In order to qualify for student teaching, candidates must hold a cumulative grade point average of 2.25 and must meet the English and Speech proficiency requirements as described in the Professional Education section of Course Descriptions.

HOME ECONOMICS EDUCATION — PLAN II

One 22 semester hour academic minor in art, biology, chemistry, English, history, journalism, mathematics, physics, sociology, or speech. Requirements for these minors are listed in the course description of each department.

FIRST YEAR

	Sem. Hrs.
Art 106, Fundamentals of Design	3
Education 123, General Psychology	3
English 102a, English Composition	3
English 102b, English Composition	3
Home Economics 100, Orientation	0
Home Economics 102, Fundamentals of Clothing	3
Home Economics 114, Food Preparation I	5
Home Economics 220, Clothing Selection	2
Physical Education 128a, Physical Education	1
Physical Education 128b, Physical Education	1
Science 122, General Biology	3
Science 214, Physiology and Anatomy	3
Speech 106, Fundamentals of Speech	2

SECOND YEAR

	Sem. Hrs.
Art 334, Interior Design	3
Education 222, Principles of Secondary Education	2
Education 303, Educational Psychology	2
Choose One:	
English 216, English Literature (3)	
English 348, American Literature (3)	
English 350, Modern British Writers (3)	3
Home Economics 212, Nutrition	3
Home Economics 218, Clothing	3
Home Economics 315, Textiles	3
Home Economics 318, Family Health and Home Nursing	2

Physical Education 228a, Physical Education	1
Physical Education 228b, Physical Education	1
Science 115, Inorganic Chemistry	5
Social Science 201, General Economics	3
Electives	3

THIRD YEAR

	Sem. Hrs.
Education 304, Introduction to Teaching	3
Education 326, Psychology of Marriage and the Family	2
English 346, Expository Writing	3
Home Economics 308, Meal Management	3
Home Economics 317, Consumer Information	3
Home Economics 334, Personality Growth and Development of the Child	3
Social Science 309, General Sociology	3
Electives	12

FOURTH YEAR

	Sem. Hrs.
*Education 401, Guidance	2
*Education 402, Principles of Vocational and Adult Education	2
*Education 404, Curriculum Development	5
*Education 408, Student Teaching	8
Home Economics 403, Home Management	4
Home Economics 424, Principles and Practices of Child Guidance	2
Choose One:	
Social Science 407, History of America (3)	
Social Science 410, Modern World (3)	3
Electives	6

*Student teaching may be taken either semester of the senior year. In order that the student may be free to teach in an off-campus school during the second quarter of the semester, the courses starred above must be taken concurrently. Application for the teacher education program must be made by the second semester of the second year. In order to qualify for student teaching, candidates must hold a cumulative grade point average of 2.25 and meet the English and Speech proficiency requirements as described in the Professional Education section of Course Descriptions.

HOME ECONOMICS — CLOTHING AND TEXTILES

One 22 semester hour academic minor in art, biology, chemistry, English, history, mathematics, physics, sociology, speech, or journalism

(technical writing for business and industry). Requirements for these minors are listed under the course descriptions of each department.

Or

Two 15 semester hour academic concentrations. These concentrations and the course requirements are listed following the home economics curricula.

FIRST YEAR

	Sem. Hrs.
Art 106, Fundamentals of Design	3
Education 123, General Psychology	3
English 102a, English Composition	3
English 102b, English Composition	3
Home Economics 100, Orientation	0
Home Economics 102, Fundamentals of Clothing	3
Home Economics 114, Food Preparation I	5
Home Economics 220, Clothing Selection	2
Physical Education 128a, Physical Education	1
Physical Education 128b, Physical Education	1
Science 122, General Biology	3
Science 214, Physiology and Anatomy	3
Speech 106, Fundamentals of Speech	2

SECOND YEAR

	Sem. Hrs.
Art 334, Interior Design	3
Choose One:	
English 216, English Literature (3)	
English 348, American Literature (3)	
English 350, Modern British Writers (3)	3
Home Economics 212, Nutrition	3
Home Economics 218, Clothing	3
Home Economics 315, Textiles	3
Physical Education 228a, Physical Education	1
Physical Education 228b, Physical Education	1
Science 115, Inorganic Chemistry	5
Social Science 201, General Economics	3
Electives	7

THIRD YEAR

	Sem. Hrs.
English 346, Expository Writing	3
Education 326, Psychology of Marriage and the Family	2

Home Economics 308, Meal Management	3
Home Economics 317, Consumer Information	3
Home Economics 325, Principles of Merchandising	3
Home Economics 334, Personality Growth and Development of the Child	3
Home Economics 413, Flat Pattern Design	2
Home Economics 415, Economics of Family Clothing	3
Science 208, Organic Chemistry	4
Social Science 309, General Sociology	3
Electives	3

FOURTH YEAR

Sem. Hrs.

Choose at least one:

Education 360, Audio-Visual Education (2)	
Education 430, Industrial Psychology (2)	
Education 479, Public Relations (2)	2
Home Economics 403, Home Management	4
Home Economics 471, History of Costume	3
Home Economics 473, Clothing and Textile Industry	3
Science 306, General Bacteriology	3
Choose One:	
Social Science 407, History of America (3)	
Social Science 410, Modern World (3)	3
Electives	14

HOME ECONOMICS — DIETETICS

One 22 semester hour academic minor in art, biology, chemistry, English, history, mathematics, physics, sociology, speech, or journalism (technical writing for business and industry). Requirements for these minors are listed under the course descriptions of each department.

Or

Two 15 semester hour academic concentrations. These concentrations and the course requirements are listed following the home economics curricula.

FIRST YEAR

Sem. Hrs.

Art 106, Fundamentals of Design	3
Education 123, General Psychology	3
English 102a, English Composition	3
English 102b, English Composition	3
Home Economics 100 or Industrial Education 100, Orientation	0

Home Economics 102, Fundamentals of Clothing	3
Home Economics 114, Food Preparation I	5
Home Economics 220, Clothing Selection	2
Physical Education 128a, Physical Education	1
Physical Education 128b, Physical Education	1
Science 122, General Biology	3
Science 214, Physiology and Anatomy	2
Speech 106, Fundamentals of Speech	2

SECOND YEAR

Sem. Hrs.

Choose One:

English 216, English Literature (3)	
English 348, American Literature (3)	
English 350, Modern British Writers (3)	3
Home Economics 212, Nutrition	3
Home Economics 230, Food Preparation II	3
Home Economics 315, Textiles	3
Physical Education 228a, Physical Education	1
Physical Education 228b, Physical Education	1
Science 115, Inorganic Chemistry	5
Science 208, Organic Chemistry	4
Science 306, General Bacteriology	3
Social Science 201, General Economics	3
Electives	3

THIRD YEAR

Sem. Hrs.

Education 303, Educational Psychology	2
Education 326, Psychology of Marriage and the Family	2
English 346, Expository Writing	3
Home Economics 308, Meal Management	3
Home Economics 328, Food Service Administration	3
Home Economics 334, Personality Growth and Development of the Child	3
Science 322, Biochemistry	3
Science 362, Advanced Physiology	3
Social Science 309, General Sociology	3
Electives	7

FOURTH YEAR

Sem. Hrs.

Education 320, Methods of Teaching Home Economics	2
Education 430, Industrial Psychology	2

Home Economics 310, Nutrition and Dietetics	3
Home Economics 403, Home Management	4
Home Economics 418, Diet Therapy	3
Home Economics 438, Experimental Food	3
Home Economics 441, Food Service Accounting	3
Home Economics 452, Institution Food Preparation	3
Home Economics 454, Institution Food Purchasing	2

HOME ECONOMICS — FOOD SERVICE ADMINISTRATION

One 22 semester hour academic minor in art, biology, chemistry, English, history, mathematics, physics, sociology, speech, or journalism (technical writing for business and industry). Requirements for these minors are listed under the course descriptions of each department.

Or

Two 15 semester hour academic concentrations. These concentrations and the course requirements are listed following the home economics curricula.

FIRST YEAR

	Sem. Hrs.
Art 106, Fundamentals of Design	3
English 102a, English Composition	3
English 102b, English Composition	3
Education 123, General Psychology	3
Home Economics 100 or Industrial Education 100, Orientation	0
Home Economics 114, Food Preparation I	5
*Home Economics 220, Clothing Selection	2
Mathematics 209, Algebra	4
Physical Education 127 or 128, Physical Education	2
Science 122, General Biology	3
Science 214, Physiology and Anatomy	3
Speech 106, Fundamentals of Speech	2

SECOND YEAR

	Sem. Hrs.
Choose One:	
English 348, American Literature (3)	
English 350, Modern British Writers (3)	3
Home Economics 212, Nutrition	3
Home Economics 230, Food Preparation II	3
Home Economics 315, Textiles	3
Industrial Education 380, Principles of Accounting	3

Mathematics 213, Trigonometry	3
*Physical Education 228, Physical Education	2
Science 115, Inorganic Chemistry	5
Science 208, Organic Chemistry	4
Science 306, Bacteriology	3

THIRD YEAR

	Sem. Hrs.
English 346, Expository Writing	3
Home Economics 308, Meal Management	3
Home Economics 328, Food Service Administration	3
*Home Economics 334, Personality Growth & Development of the Child	3
Home Economics 441, Food Service Accounting	3
Home Economics 452, Quantity Food Production and Service	3
Science 421, Physics	5
Social Science 201, General Economics	3
Social Science 309, Sociology	3
Electives	3

FOURTH YEAR

	Sem. Hrs.
Education 430, Industrial Psychology	2
Education 435, Personnel Management	3
Home Economics 454, Institutional Food Purchasing	2
Home Economics 455, Food Service Equipment	2
Home Economics 475, Advanced Food Production Management	3
Industrial Education 401, Advanced Accounting	3
Mathematics 212, Computational Statistics	2
Mathematics 240, Digital Computer Programming	2
Choose One:	
Social Science 407, History of America (3)	
Social Science 410, Modern World (3)	3
Electives	9
*Men enrolled in Food Service Administration may substitute an elective.	

HOME ECONOMICS — GENERAL

One 22 semester hour academic minor in art, biology, chemistry, English, history, mathematics, physics, sociology, speech, or journalism (technical writing for business and industry). Requirements for these minors are listed under the course descriptions of each department.

Or

Two 15 semester hour academic concentrations. These concentrations and the course requirements are listed following the home economics curricula.

FIRST YEAR

	Sem. Hrs.
Art 106, Fundamentals of Design	3
Education 123, General Psychology	3
English 102a, English Composition	3
English 102b, English Composition	3
Home Economics 100, Orientation	0
Home Economics 102, Fundamentals of Clothing	3
Home Economics 114, Food Preparation I	5
Home Economics 220, Clothing Selection	2
Physical Education 128a, Physical Education	1
Physical Education 128b, Physical Education	1
Science 122, General Biology	3
Science 214, Physiology and Anatomy	3
Speech 106, Fundamentals of Speech	2

SECOND YEAR

	Sem. Hrs.
Art 334, Interior Design	3
Choose One:	
English 216, English Literature (3)	3
English 348, American Literature (3)	3
English 350, Modern British Writers (3)	3
Home Economics 212, Nutrition	3
Home Economics 218, Clothing	3
Home Economics 315, Textiles	3
Home Economics 318, Family Health and Home Nursing	2
Physical Education 228a, Physical Education	1
Physical Education 228b, Physical Education	1
Science 115, Inorganic Chemistry	5
Social Science 201, General Economics	3
Electives	5

THIRD YEAR

	Sem. Hrs.
Education 326, Psychology of Marriage and the Family	2
English 346, Expository Writing	3
Home Economics 308, Meal Management	3

Home Economics 317, Consumer Information	3
Home Economics 334, Personality Growth and Development of the Child	3
*Home Economics	6
Social Science 309, General Sociology	3
Electives	9

FOURTH YEAR

	Sem. Hrs.
Home Economics 403, Home Management	4
Home Economics 424, Principles and Practices of Child Guidance	2
Home Economics 428, Family Economics	2
*Home Economics	6
Science 442, Community Hygiene	2
Choose One:	
Social Science 407, History of America (3)	3
Social Science 410, Modern World (3)	3
Electives	13

*During the third and fourth years the student must complete six additional semester hours of credit in each of the following areas. Clothing and Textiles, Food and Nutrition.

HOME ECONOMICS — GENERAL

WITH OPTION IN FOOD AND NUTRITION

WITH EMPHASIS IN TECHNICAL WRITING

FOR HOME ECONOMICS

One 22 semester hour academic minor in art, biology, chemistry, English, history, mathematics, physics, sociology, speech, or journalism (technical writing for business and industry). Requirements for these minors are listed under the course descriptions of each department.

Or

Two 15 semester hour academic concentrations. These concentrations and the course requirements are listed following the home economics curricula.

FIRST YEAR

	Sem. Hrs.
Art 106, Fundamentals of Design	3
Education 123, General Psychology	3
English 102a, English Composition	3
English 102b, English Composition	3

Home Economics 100, Orientation	0
Home Economics 102, Fundamentals of Clothing	3
Home Economics 114, Food Preparation I	5
Home Economics 220, Clothing Selection	2
Physical Education 128a, Physical Education	1
Physical Education 128b, Physical Education	1
Science 122, General Biology	3
Science 214, Physiology and Anatomy	3
Speech 106, Fundamentals of Speech	2

SECOND YEAR

Sem. Hrs.

Choose One:

English 216, English Literature (3)	
English 348, American Literature (3)	
English 350, Modern British Writers (3)	3
English 306, Reporting and News Writing	2
Home Economics 212, Nutrition	3
Home Economics 230, Food Preparation II	3
Home Economics 315, Textiles	3
Physical Education 228a, Physical Education	1
Physical Education 228b, Physical Education	1
Science 115, Inorganic Chemistry	5
Science 208, Organic Chemistry	4
Social Science 201, General Economics	3
Electives	4

THIRD YEAR

Sem. Hrs.

Education 326, Psychology of Marriage and the Family	2
English 346, Expository Writing	3
English 410, Writing and Selling Feature Articles	2
Home Economics 300, Applied Institution Management	3
Home Economics 308, Meal Management	3
Home Economics 317, Consumer Information	3
Home Economics 333, Home Equipment and Applied Physics	3
Home Economics 334, Personality Growth and Development of the Child	3
Science 208, Organic Chemistry	4
Social Science 309, Sociology	3
Electives	3

FOURTH YEAR

	Sem. Hrs.
Education 430, Industrial Psychology	2
Education 479, Public Relations	2
English 415, Technical Writing for Home Economics	3
Home Economics 400, Demonstration Techniques	2
Home Economics 403, Home Management	4
Home Economics 438, Experimental Food	3
Science 306, General Bacteriology	3
Choose One:	
Social Science 407, History of America (3)	3
Social Science 410, Modern World (3)	3
Speech 470, Radio and TV Workshop	2
Electives	7

FIFTEEN CREDIT ACADEMIC CONCENTRATIONS FOR HOME ECONOMICS

ART

Fifteen Credits selected from the offerings in Art.

ENGLISH AND SPEECH

Fifteen credits selected from the offerings in English and Speech. At least four credits must be chosen from each area.

JOURNALISM: TECHNICAL WRITING FOR BUSINESS AND INDUSTRY

Required courses are E. 306 Reporting and News Writing, E. 410 Writing and Selling Feature Articles, E. 415 Technical Writing for Home Economics, E. 425 Copy Editing and Preparation, I.E. 117 Printing, I.E. 205 Elementary Photography, I.E. 361 Printing Design.

MATHEMATICS

Fifteen credits selected from the offerings in Mathematics.

SCIENCE

Fifteen credits selected from at least two of the following areas: Biology, Chemistry, and Physics.

SOCIAL SCIENCE

Fifteen credits selected from the offerings in Social Science.

SCHOOL OF LIBERAL STUDIES

OBJECTIVES OF THE SCHOOL OF LIBERAL STUDIES

The School of Liberal Studies attempts to fulfill the following objectives in the general education of each student:

1. Develop creative thinking
2. Develop social responsibility
3. Develop appreciation in art, music, crafts, drama, and literature
4. Develop the ability to grapple with ideas
5. Develop perspective in the changing world

GENERAL INFORMATION

The School of Liberal Studies in addition to its curriculum in Art and provision for general education courses for all majors, is expanding its offerings in order to serve more adequately those students who (1) desire two years of general education as a background for good citizenship and useful community living; (2) desire one or two years of college work near home before transferring to a liberal arts college or a university; (3) desire an introduction to college life in an atmosphere where personal, educational, and vocational goals may be formulated; (4) desire pre-professional courses basic to a major profession.

TWO YEAR LIBERAL STUDIES PROGRAM

Before registering in the Liberal Studies Program, a student who has already selected a college from which he expects to be graduated should, if possible, obtain and study catalogs from that institution. Correspondence with officials of the college will also help him to determine the most relevant courses and assure him of acceptance of the credits.

Certain courses are basic to almost every college curriculum:

Two semesters of English Composition (placement according to proficiency)

Mathematics (placement according to proficiency)

Two semesters of laboratory science (biology, chemistry, or physics)

Two semesters of history (either United States History or History of Western Civilization)

Speech

Foreign Language

Physical Education

Other subjects frequently required for college graduation or frequently recommended as electives include: literature (English, American or both), sociology, economics, American government, additional laboratory science, additional mathematics, psychology, philosophy, additional speech, art, and music. In addition, there are many technical courses in both Home Economics and Industrial Education which serve as general education or would apply in specific professional curricula.

Pre-professional requirements differ widely from college to college. Usually a year or more of pre-professional work can safely be taken at Stout in:

Agriculture	Medicine
Architecture	Nursing
Commerce	Pharmacy
Dentistry	Physical Therapy
Education	Medical Technology
Engineering	Social Work
Journalism	Veterinary Medicine
Law	

Pre-professional courses should be carefully worked out with the help of the adviser and catalogs of professional schools.

COOPERATIVE TRAINING PROGRAM FOR NURSES

Young women who plan to enter the three-year program of the Madison General Hospital School of Nursing, Madison, Wisconsin, are able to complete the entire first year of that program on the Stout campus and then enter directly the clinical program at the School of Nursing in Madison. During her September-June year at Stout State University, each nursing student completes specified credits in English, chemistry, physiology and anatomy, biology, psychology, sociology, and elective subjects.

CURRICULA IN ART

A four-year curriculum in the School of Liberal Studies leads to a degree of Bachelor of Science with a major in Art Education or a major in Art (non-teaching).

Persons majoring in Art Education will be qualified upon graduation to teach art in elementary and secondary schools.

The Art major would prepare the student for a professional career in art or for further study in graduate school. The Art major does not fulfill the requirements for a teacher's certificate.

ART

DEGREE REQUIREMENTS

Total for graduation	132 semester hours
Academic courses	68 semester hours
Studio Courses in Art	64 semester hours

COURSE REQUIREMENTS

Section I. Basic Courses	20-22 Sem. Hrs.
Art 390, Modern Art	3
English	9

English 102a and b, English Composition (6) and English 250, English Literature in Translation (3) or English 102a and b (H), English Composition (6) and Literature Elective (3)	
Physical Education 127 or 128, Physical Education	2
Science or Mathematics	4-6
Students with two years of high school science or two years of college oriented mathematics are exempt from this requirement but must elect 4-6 more credits from Section II.	
Speech 106, Fundamentals of Speech	2
Section II. Academic Courses	48 Sem. Hrs.
Group 1. Courses in any of the following	8
Foreign Language	
The second year in any language must be completed.	
Literature	
Philosophy	
Speech	
Courses in theatre workshop or stage craft do not apply but may be included in electives in Section III.	
Group 2. Courses in at least 3 of the following:	8
Economics	
History	
Political Science	
Sociology	
Group 3. Courses in any of the following	8
Psychology	
Biology	
Chemistry	
Mathematics	
Physics	
Group 4. Electives from Groups 1, 2, or 3	9
Group 5. Art History electives	15
Section III. Art Studio Courses	64 Sem. Hrs.
Art 200, Drawing	3
Art 300, Painting	3
Art 320, Sculpture	3
Art 401, Drawing	3
Art 410, Ceramics	3

Art 411, Ceramics	3
Art 412, Painting	3
Art 413, Sculpture	3
Art 420, Life Drawing	3
Art 421, Life Drawing	3
Art 440, Art Metal	3
Art 441, Art Metal	3
Art 451, Printmaking	3
Art 452, Printmaking	3
Art 498, Esthetics	3
Electives in music or art oriented studio, shop, or laboratory courses	19

ART EDUCATION DEGREE REQUIREMENTS

Total for graduation	130 semester hours
Academic courses	56 semester hours
Professional education	20 semester hours
Studio courses in Art	54 semester hours

COURSE REQUIREMENTS

Section I. Basic Courses	20-22 Sem. Hrs.
Art 390, Modern Art	3
English	9
English 102a and b, English Composition (6) and English 250, Ancient Literature in Translation (3) or English 102a and b (H), English Composition (6) and Literature Elective (3)	
Physical Education 127 or 128, Physical Education	2
Science or Mathematics	4-6
Students with two years of high school science or two years of college oriented mathematics are exempt from this requirement but must elect 4-6 more credits from Section II.	
Speech 106, Fundamentals of Speech	2

Section II. Academic Courses

34 Sem. Hrs.

Group 1. Courses in any of the following: 8-10

Foreign Language

The second year in any language must be completed.

Literature

Philosophy

Speech

Courses in theatre workshop or stage craft do not apply but may be included in electives in Section IV.

Group 2. Courses in at least 3 of the following: 8-10

Economics

History

Political Science

Sociology

Group 3. Courses in any of the following: 8-10

Biology

Chemistry

Mathematics

Physics

Psychology

Group 4. Art History electives 9

Section III. Professional Education Courses

20 Sem. Hrs.

Education 222, Principles of Secondary Education 2

Education 302, Introduction to Teaching Art in the Elementary
Schools 3

Education 303, Educational Psychology 2

Education 307, Introduction to Teaching Art in the Secondary
Schools 3

Education 434, Curriculum Development for Art 2

Education 408, Student Teaching 8

Section IV. Art Studio Courses

54 Sem. Hrs.

Art 200, Drawing 3

Art 300, Painting 3

Art 320, Sculpture 3

Art 401, Drawing 3

Art 410, Ceramics 3

Art 411, Ceramics 3

Art 412, Painting 3

Art 413, Sculpture 3

Art 420, Life Drawing	3
Art 440, Art Metal	3
Art 441, Art Metal	3
Art 451, Printmaking	3
Art 452, Printmaking	3
Art 498, Esthetics	3
Electives in music or art oriented studio shop or laboratory courses	12

DESCRIPTION OF COURSES

The courses numbered from 100 to 199 are primarily for freshmen; those numbered from 200 to 299, for sophomores; 300 to 399, for juniors; and 400 to 499, for seniors. However, recent curricular changes have caused some irregularities in this regard. Courses numbered 500 and above are restricted to graduate students only and are described in the *Graduate Studies Bulletin*.

In advanced courses prerequisites are listed in the course descriptions. For flexibility in programming, students are occasionally permitted to take certain courses concurrently; such courses are designated as Prerequisite or Parallel.

To earn one semester hour of credit, the student is expected to spend a total of 54 hours in lecture, laboratory, shop, studio, or outside study. For example:

1 hour lecture and 2 hours outside study for 18 weeks totals 54 hours
2 hours shop, laboratory, or studio and 1 hour outside study for 18 weeks totals 54 hours

3 hours shop, laboratory, or studio and 0 hours outside study for 18 weeks totals 54 hours

5 hours shop, laboratory, or studio and 1 hour outside study for 9 weeks totals 54 hours.

The distribution of lecture and laboratory hours for shop, studio, and laboratory courses is given in parentheses. For example, (1-4) means one hour of lecture or discussion and four hours of laboratory per week. Most courses operate on the eighteen-week semester, and credits are expressed in semester hours. However, certain courses are scheduled on the nine-week or quarter basis; such courses are indicated by Qr. and the class hours per week are increased accordingly.

APPLIED SCIENCE AND TECHNOLOGY

ORIENTATION

Price, Swanson, and Department Heads

Industrial Education 100 *Orientation*

0 Cr.

Admission requirements, program operation, attendance regulations, credits, scholastic measurement. Analysis of characteristics of a good performance in shop or drafting courses, in professional courses, in academic courses. Personal problems in physical, social, and mental phases. Curriculum opportunities, professional requirements, trends in placement calls, significance of choices available.

GENERAL
Sampson

Industrial Education 253 *General Shop I* Qr. (0-10) 2 Cr.

Prerequisite: Sophomore standing

Organization of multiple activities teaching through instruction in related information and basic operations in leather and metal craft.

Industrial Education 365 *General Shop II* Qr. (0-10) 2 Cr.

Prerequisite: Junior standing

Experience in administration, project development, and teaching problems associated with general industrial arts.

Industrial Education 425 *Industrial Arts for Elementary Teachers*

Qr. (0-10) 2 Cr.

Prerequisite: Senior or Graduate standing

The role of industrial arts in elementary school, including history, philosophy, objectives, course organization and activities.

Industrial Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

I.E. 542 Advanced Technical Problems—General Shop is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

ELECTRICITY
Ortley, Ruehl, Spinti

Industrial Education 206 *Electricity* Qr. (0-10) 2 Cr.

Prerequisite: M. 213 or equivalent

Fundamentals of electricity including the theory and laws for direct and alternating current circuits.

Industrial Education 343 *Electronics I* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 206

Fundamentals of vacuum tubes. Circuit analysis and study of power supplies and audio amplifiers. Public address equipment such as microphones, tape input units, record players, and speaker systems are studied.

Industrial Education 344 *Electronics II* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 343

Fundamentals of semiconductors. Study of oscillators, pulse and wave shaping circuits.

Industrial Education 345 *Industrial Electricity* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 206

Characteristics of alternators and motors. A study of control circuits for motors and generators. Three phase power transformer connections. Residential wiring. Auxiliary power supplies, inverters, and converters and servo-synchro systems.

Industrial Education 347 *Radio* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 344

Transmission, propagation, and reception of amplitude and frequency modulated radio waves. Antenna types and methods of coupling. Super-hetrodyne receivers with accessory circuits such as B.F.O. and tuning indicators.

Industrial Education 357 *Television* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 347

Transmission and reception of monochromatic and color T.V. signals. Antenna types for VHF and UHF signals. Wired high frequency distribution systems. Closed circuit television equipment.

Industrial Education 439 *Industrial Electronics* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 344

Analysis of electronic circuits as applied to control of industrial processes. Circuits such as timing, heating, counting, measuring, speed control, and other special purpose circuits are studied and tested. Aircraft electronic control circuits are presented for analysis.

Industrial Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

I.E. 544 Advanced Technical Problems—Electricity is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

INDUSTRIAL GRAPHICS

Amthor, Anderson, Erickson, Horn, Sedgwick, Siefert, Wold

Industrial Education 101 *Drafting* Qr. (0-10) 2 Cr.

Mechanical and freehand drafting techniques. Graphic representation emphasized in a number of industrial areas.

Industrial Education 201 *Design* Qr. (0-10) 2 Cr.

Prerequisite: Sophomore standing

A study and application of basic principles of design through creative use of various materials.

Industrial Education 222 *Mechanical Drafting* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 201

Solution of a stated mechanical design problem through research, application of advanced drafting skills and design drawings, identification of materials and standard parts, and technical reports.

Industrial Education 226 *Technical Illustrating* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 201

Prepare illustrations which accompany a saleable product for assembly, maintenance and marketing. Techniques used include: axonometric projection, exploded views, assembly drawings, diagrammatic layouts, overlays with transparencies, and the use of appliques.

Industrial Education 227 *Machine Design* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 222

Analysis of machine parts and their functions. Technical sketching, measuring techniques, drafting conventions and standard parts. Use of technical manuals, references, and handbooks.

Industrial Education 229 *Machine Design* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 227

Analysis of motion, motion diagrams. Motion layout of threads, spur and bevel gears, worm and worm wheels, and cams.

Industrial Education 231 *Architectural Design* Sem. 3 Cr.
Prerequisite: I.E. 201

Utilization of building site, analysis of family needs, sketching of floor plans, preliminary instrument drawings, simple estimating, lighting design, heat loss, and selection of structural members.

Industrial Education 233 *Architectural Design* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 231

Preparation of house plans to include plot plan, elevations, sectional details, and perspective. Preparation of plans for electrification, plumbing, and heating. Cost estimates.

Industrial Education 265 *Descriptive Geometry* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 101

The representation of points, lines, and planes in relative positions. Intersections of lines with plan surfaces, intersections of surfaces, size and shape of plane areas, and the development of curved surfaces.

Industrial Education 326 *Topography* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 201

Collect data from field work. Record, calculate, and convert field notes in the laboratory on maps, profiles, and land descriptions.

Industrial Education 329 *Machine Design* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 229

Production assembly drawings, inspection procedure, parts listing, Bill of Materials, corrections and revisions, jigs and fixtures, indexing and coding procedures.

Industrial Education 331 *Architectural Design* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 233

Advanced residential planning; FHA standards; national, state, local codes;

problem solving by construction of models, individual research, and field trips.

Industrial Education 431 *Architectural Design* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 331

Preparation of plans for commercial or public building. Sketching and instrument drawings, rendering, and reference to building codes.

Industrial Education 433 *Machine Design* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 329

Analysis of patent drafting; technical and legal consultation; preliminary sketch and drawings; indentures, expressions, and final drafts.

Industrial Education 434 *Product Development* Sem. 2 Cr.
Prerequisite: I.E. 227 or consent of instructor

Independent research directed to the solution of a student-selected design problem requiring application of the sciences, industrial graphics, identification of manufacturing methods, marketing and cost analysis, and model or prototype construction.

Industrial Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

I.E. 541 Advanced Technical Problems—Industrial Graphics is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

INDUSTRIAL TECHNOLOGY

Arora, Ganzemiller, Sakiey, Sommers

Industrial Education 290 *Industrial Organization* (1-2) 2 Cr.

Introduction to the functional areas of an industrial enterprise and methods used by different areas in fulfilling their responsibilities to management.

Industrial Education 300 *Introduction to Industrial Technology* (2-2) 3 Cr.

Prerequisites: I.E. 290 and M. 212

Cumulative grade point average 2.3, Speech and English proficiency requirements.

The role and methods of the Industrial Technology graduate in the industrial enterprise. Included: analytical methods; cost data for decisions; production design and process planning; design of jobs and work methods; introduction to design and control of systems.

Industrial Education 304 *Packaging Materials* (2-2) 3 Cr.

Prerequisites: I.E. 290 and I.E. 203

Introduction to the field of packaging. Composition, properties, and applications of packaging materials. Standards and testing methods.

Industrial Education 324 *Packaging Systems* (2-2) 3 Cr.

Prerequisite: I.E. 304

Introduction to the elements of sound packaging. Work on design, construction, and testing. Discussions on mechanical packaging methods.

Industrial Education 380 *Principles of Accounting* (2-2) 3 Cr.

Prerequisite: I.E. 290

Emphasis on the purpose of accounting. Financial statements, accounting cycle, business organization, cost accounting, analysis of financial data, and budgetary planning and control.

Industrial Education 400 *Quality Control* (1-2) 2 Cr.

Prerequisite: I.E. 300

Establishment of quality standards, inspection principles and organization, control chart theory and application, acceptance sampling, organizing for quality control.

Industrial Education 401 *Advanced Accounting* 3 Cr.

Industrial Education 410 *Production Control* (1-2) 2 Cr.

Prerequisite: I.E. 300

Introduction to industrial plant operation; production planning and control. Forecasting, inventory control, production requirements, routing, scheduling, dispatching, and follow-up. Data processing.

Industrial Education 420 *Time and Motion Study* (1-2) 2 Cr.

Prerequisite: I.E. 300

Study and application of work measurement systems such as time study, M.T.M., standard data, and work sampling. Analysis of work for methods improvement by use of motion economy, process charting, flow diagramming, operator training, and suggestion systems.

Industrial Education 430 *Marketing Management* (2-2) 3 Cr.

Prerequisites: I.E. 290 and I.E. 201

Introduction to the functions of marketing, emphasis on market research, pricing, distribution channels, sales management, advertising, promotion, and service engineering.

Industrial Education 460 *Industrial Management* (1-2) 2 Cr.

Prerequisites: I.E. 300 and Senior standing

Management problems requiring use of prior course work; emphasis on

the human element. Use of role playing, conferences, outside speakers, and written reports related to actual and simulated case problems and industrial games.

Industrial Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

METALS

Face, Gehring, Halfin, Klatt, Kufahl, Muller, Spiedel, Wiehe

Industrial Education 102 *Metals* Qr. (0-10) 2 Cr.

Introduction and orientation to the metals field. Equal time is spent in machine shop, welding, foundry, and sheet metal. Large group lectures are held weekly. Exploratory experiences are provided in the four areas with fundamental operations and related technical information.

Industrial Education 113 *Machine Shop* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 102

First course in machine shop. It provides experiences basic to the engine lathe, drillpress, milling machine, grinder and shaper. Hand tools related to the machine shop are studied. Related information appropriate to fundamental operations of the basic machine tools is given.

Industrial Education 210 *Sheet Metal* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 102

Fundamental machine and hand tool operations, soldering, pattern development, and related information. Discussions on manufacturing and purchasing of equipment and supplies.

Industrial Education 235 *Machine Shop* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 113

Sharpening of lathe tools, twist drills, milling cutters. Taper turning, grinding externally and on flat surfaces. Gear cutting on the milling machine. Heat treating and layout techniques.

Industrial Education 237 *Machine Shop* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 235

Advanced shop practice involving industrial machine construction problems. Basic and advanced machine tool operation are correlated by use of problem solving in the building of a complete machine as a class problem. Production machine shop theory related to shop procedures. Advanced grinding of tools and cutters.

Industrial Education 239 *Sheet Metal* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 210

Advanced pattern development involving parallel line, radial line, and triangulation. Shop practice in sheet metal work. Care and maintaining of sheet metal equipment.

Industrial Education 241 *Sheet Metal* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 210

Cabinet work involving direct layout with extensive work in the cornice brake. Spot welding, air gun riveting. Study, selection, and purchasing of supplies.

Industrial Education 243 *Foundry* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 102

Instructional units in molding applied in bench and floor; core making. Melting and pouring brass and aluminum.

Industrial Education 330 *Winter Air Conditioning* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 210

Principles of heating, heat energy, heating systems, calculation of heating loads, heating drawings, burners, and control systems.

Industrial Education 335 *General Metal* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 102

Organization layout, equipment, management, uses of instruction materials; selected projects in arc welding, forging, heat treating, machine shop, oxy-acetylene welding and cutting.

Industrial Education 435 *Machine Shop* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 237

Continuation of advanced production processes. Toolmaking methods. Emphasis is on tooling problems and their solution by creative planning of set-ups. Some designing and building of fixtures and jigs as they become necessary to solution of the production problems. Theory of machine tool principles and history of their development.

Industrial Education 455 *Oxyacetylene Welding* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 102

Operation of manifolds, tanks, gauges, and torches. Welding of all common metals; hand and machine cutting of steel; testing and checking; technology of materials.

Industrial Education 457 *Electric Arc Welding* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 102

Characteristics and operation of several kinds of arc welding equipment. Preparation of joints, striking and manipulation of the arc in various weld positions, welding of the common metals, symbols, types of electrodes, hand and machine cutting, destructive and non-destructive testing of welds.

Industrial Education 461 *Tool and Die Making* Qr. (0-10) 2 Cr.

Prerequisites: I.E. 237, and for graduate students, Ed. 501

Operations and related technical information units for selecting examples of single station cutting dies; drawing, expanding, non-cutting, assembling, progressive, and finishing dies; permanent molds. Layout work, methods of fabrication, and machine tool operations involved planned by the student.

Industrial Education 462 *Maintenance of Metal Working Equipment*

Qr. (0-10) 2 Cr.

Prerequisites: I.E. 235 and I.E. 335

Repair and preventive maintenance of machine tool equipment. Emphasis on use of universal tool and cutter grinder. Alignment, fitting, and adjustment of precision machine tools. Storage and arrangement of small tools and accessories.

Industrial Education 477 *Metal Production and Processes*

Qr. (0-10) 2 Cr.

Prerequisites: I.E. 102 and Senior standing

Advanced study in manufacturing processes and the production of metals. The course offers the student the opportunity to study areas in which he is deficient.

Industrial Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

I.E. 545 Advanced Technical Problems—Metals is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

PHOTOGRAPHY

Barnard, Hardman, Herbert

Industrial Education 205 *Elementary Photography* Qr. (0-10) 2 Cr.

Picture taking, film developing, printing, and enlarging. Basic technical skills and composition emphasized. Each student required to provide camera and photographic film.

Industrial Education 405 *Advanced Photography* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 205

Advanced techniques in monochromatic photography and the fundamentals of color photography including color film development and color printing. Students required to provide suitable cameras.

POWER MECHANICS

Collier, Daines, Morical

Industrial Education 202 *Power Mechanics* Qr. (0-10) 2 Cr.

The operation, construction, and service of typical power development and transmission devices. Units of instruction in internal combustion engines, industrial hydraulics, and mechanical power transmission.

Industrial Education 242 *General Motor Mechanics* Qr. (0-10) 2 Cr.

Consumer knowledge of internal combustion engines and the automotive chassis units. Servicing, adjusting or repairing of fuel systems, ignition systems, ride control and units of the chassis.

Industrial Education 245 *Auto Mechanics—Auto Body*

Qr. (0-10) 2 Cr.

Prerequisite: I.E. 335

Repair of the automobile body and accessories. Fender and body repairing, refinishing, interior trim repairing, wheel alignment and balancing.

Industrial Education 247 *Automotive Engines* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 202

Automotive engine rebuilding and engine accessory servicing. Service procedures for cylinders, pistons and rings, piston pins, valves, and other engine components and accessories.

Industrial Education 341 *Auto Mechanics—Electric & Tune-up*

Qr. (0-10) 2 Cr.

Prerequisite: I.E. 202 or I.E. 242

Automotive electrical circuits and batteries. Operating principles, diagnostic tests, adjustments, repair and replacement methods.

Industrial Education 451 *Auto Mechanics* Qr. (0-10) 2 Cr.

Prerequisite: Senior standing

Equipment and management problems for prospective teachers of auto mechanics. Practice in installation, preventive maintenance, and repair of diagnostic equipment and machines. Selecting, acquiring, and organizing teaching material.

Industrial Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will

direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

I.E. 547 Advanced Technical Problems—Power and Transportation is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

PRINTING

Axelsen, Gray, Herr, Schemansky, Whydowski

Industrial Education 117 *Printing* Qr. (0-10) 2 Cr.

Basic fundamentals of printing processes. Elements of letterpress, lithography, silk screen, mimeograph, spirit duplicating, intaglio, binding and copy preparation.

Industrial Education 255 *Advanced Printing* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 459

Problems in composition, stonework, platen press work, and binding. Introduction to commercial problems and jobs; typographical design.

Industrial Education 257 *Machine Composition* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 255 and consent of department head

The mechanism, care, and operation of linecasting machines. Keyboard operation and mechanical adjustments.

Industrial Education 259 *School Publications* Qr. (0-10) 2 Cr.

Prerequisite: E. 102b

Production of school newspapers, magazines, and annuals. Elements of journalism and the application from the viewpoint of the adviser. *The Stoutonia*, the college weekly newspaper used as laboratory.

Industrial Education 351 *Printshop Mechanics* Qr. (0-10) 2 Cr.

Prerequisites: I.E. 255 and I.E. 376

Adjustment and care of machines in the school and job shop.

Industrial Education 359 *Cooperative Industrial Printing I and II*

Qr. (0-10) 2 Cr.

Prerequisites: I.E. 255 and I.E. 376

Production at the college press under commercial conditions. One hundred clock hours of actual production experience in college press required for two semester hours of credit.

Industrial Education 361 *Printing Design* Qr. (0-10) 2 Cr.

Type design, commercial layouts, colors, papers, cover design, folders, and booklets. Application of design in printing.

Industrial Education 363 *General Graphic Arts* Qr. (0-10) 2 Cr.

Basic reproductive processes in graphic arts. Block cutting, lithography, etching, silk screen, engraving, and bookbinding.

Industrial Education 370 *General Bookbinding* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 363 or consent of department head

Basic fundamentals of the binding and repair of books. Instruction in the making of binding equipment and the use of materials obtained from local sources.

Industrial Education 374 *Offset Lithography* Qr. (0-10) 2 Cr.

Fundamentals of offset lithography including units in camera work, plate making, and press work.

Industrial Education 376 *Advanced Lithography* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 374

Continuation of I.E. 374. Preparation of intricate copy, stripping of negatives in plate making, and preparation of copy for multiple color work.

Industrial Education 449 *Printing Economics* Qr. (0-10) 2 Cr.

Shop organization and management, purchasing of equipment and supplies, shop layouts, and cost estimations.

Industrial Education 459 *Presswork* Qr. (0-10) 2 Cr.

Operation and adjustment of platen and cylinder presses, automatic feeders, lockup, imposition, and makeready. Printability of papers, inks, and engravings. Operation and adjustment of bindery equipment.

Industrial Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

I.E. 543 *Advanced Technical Problems—Graphic Arts* is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

WOOD TECHNICS

Bjornerud, Dyas, Henak, Hofer, Hokeness, Olsen, Piersall, Soderberg

Industrial Education 103 *Woodworking* Qr. (0-10) 2 Cr.

Job planning, technical information, and fundamental operations in hand and machine woodworking, and wood finishing. Includes basic information in the construction of furniture and in building construction.

Industrial Education 131 *Machine Woodworking* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 103

Technical information, job planning, fundamental principles of machine woodworking. Mass production in woodworking emphasized.

Industrial Education 203 *Plastics* Qr. (0-10) 2 Cr.

Job planning, technical information, and operations in plastics, including compression, molding, injection molding, foaming, thermoform-

ing, casting, laminating, and fabricating thermosets and thermoplastics.

Industrial Education 209 *General Finishing* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 103

Technical information and application of finishes to various materials. Color theory, spraying, baking, drying, polishing, spot finishing, and re-finishing.

Industrial Education 215 *Cabinet Work I* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 311

Must be taken in conjunction with I.E. 312. Problem solving, testing of materials, and advanced technical information. Student designs major project, develops job plan and evaluation devices, and begins project construction.

Industrial Education 219 *Building Construction I* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 103

Technical information and problems in building construction. Actual construction of fundamental components. Elementary roof framing.

Industrial Education 221 *Painting and Decorating* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 209

Application of color theory, color mixing, painting, graining, stenciling, marbling, mottling, stippling, texturing, and dry wall construction.

Industrial Education 225 *Patternmaking I* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 103

Application of patternmaking principles, using wood, wax, plaster, and plastic materials for foundry and plastics work.

Industrial Education 311 *Design in Wood* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 103

Study and application of basic principles of design with wood and allied materials. Research, testing and completion of individual and group projects.

Industrial Education 312 *Cabinet Work II* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 215

Must be taken in conjunction with I.E. 215. Advanced problem solving and technical information. Making of jigs and fixtures. Demonstrations of machine operations by class members. Completion of project begun in I.E. 215.

Industrial Education 316 *General Woodworking* Qr. (0-10) 2 Cr.

Prerequisite: I.E. 103

General Unit shop organization. Upholstery, carpentry, and wood turning.

Experience in organization and presentation of content in woodworking as it relates to the total industrial arts program.

Industrial Education 319 *Building Construction II* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 219

Technical information and problems in building construction with emphasis on exterior materials and components and advanced roof framing.

Industrial Education 325 *Patternmaking II* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 225

Production pattern design for foundry and plastics work. Experimental construction.

Industrial Education 421 *Building Construction III* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 319

Technical information and problems in interior finishing with emphasis on cabinet and stair construction.

Industrial Education 440 *Plastics II* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 203

Technical information and product development. Construction of molds and forms for molding, casting, laminating, foaming, and thermoforming.

Industrial Education 464 *Tool and Machine Conditioning* Qr. (0-10) 2 Cr.
Prerequisite: I.E. 103

Technical information on woodworking equipment, cutting theory, safety, and shop organization. Maintenance of woodworking machines, saw fitting, and general hand tool fitting.

Industrial Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

I.E. 546 Advanced Technical Problems—Woodworking is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

OFF-CAMPUS WORK IN INDUSTRY

Ganzemiller

Industrial Education 408 *Industrial Work Assignment* 2-10 Cr.

Prerequisites: I.E. 290, overall grade point average of 2.25, consent of advisor and coordinator of cooperative education.

For each two credits, minimum of eight full weeks or 320 hours during a semester or summer in an approved industrial job. Written and oral report and evaluation by immediate supervisor on the job. May be re-

peated for credit up to ten, but must be progressively more advanced and directly related to university program concentration.

Industrial Education 490 *Technical Field Experience* 2-6 Cr.

Prerequisite: Consent of advisor and coordinator of cooperative education

One credit per 40 hours of instruction in special school conducted by industry. This instruction must be directly related to university program concentration. Registration at university required prior to attendance at the special school.

SAFETY

Arneson, Rue, Schulz

A minor in safety consists of 22 semester hours. Required courses are Sf. 423, Sf. 448, Sf. 452, and Sf. 455. Ten additional credits should be selected from the following courses: I.E. 242, P.E. 101, Ed. 303, Ed. 360, Ed. 304, and Ed. 401.

Safety 423 *General Safety* 3 Cr.

Prerequisite: Sophomore Standing

Introduction to the philosophy and principles of accident prevention. Supervising school safety programs. Identification of resources and content such as, motor vehicle, home, public, farm, industrial, school, recreational, and civil defense.

Safety 448 *Driver Education* 3 Cr.

Prerequisite: Valid driver's license

Introduction to history, objectives, and instructional content and methods of traditional driver education programs. Laboratory experience involves instruction of student driver in dual controlled vehicles.

Safety 452 *Administration of Driver Education* 3 Cr.

Prerequisite: Sf. 448

Comprehensive programming of driver education programs. Emphasis on simulation, range, adult programs, driver improvement, handicapped instruction, and psychology of driver.

Safety 455 *Traffic and Highway Safety* 3 Cr.

Prerequisite: Sf. 423 or permission of instructor

An overview of the traffic and highway safety problems, components, research agencies, national, state and local policies, standards, and recommendations for improved traffic safety.

Education 487 *Civil Defense Education* 2 Cr.

Governmental, scientific, and moral aspects of civil defense with emphasis in curriculum enrichment, school emergency planning, and individual responsibilities. Beneficial for any teacher but especially for teachers

of social science, general science, physics, chemistry, agriculture, home economics, and upper elementary. Certificates granted by the State Board of Vocational and Adult Education that could lead to part-time employment in the Civil Defense Adult Education Program. Individual experiment with radioisotope according to teacher's field and development of curriculum guide or school emergency plan required.

EDUCATION AND PSYCHOLOGY

PSYCHOLOGY

Bolstad, Duling, Jenson, Klitzke,
Oetting, Rimel, Ritland, Salyer, Wurtz

Education 123 *General Psychology* 3 Cr.

Scientific versus unscientific approaches in understanding behavior. Efficient study methods, individual differences, motivation, emotions, personality development, thinking, and psychological problems of college, community, and vocational life.

Education 303 *Educational Psychology* 2 Cr.

Prerequisite: Ed. 123

Child and adolescent development, learning and its guidance, the individual student, and the implications of interests and attitudes.

Education 326 *The Psychology of Marriage and the Family* 2 Cr.

A study of the interpersonal relations involved in dating, mating, and family collaboration with growing awareness of patterns for self integration.

Education 350 *Adolescent Psychology* 2 Cr.

Prerequisite: Ed. 123

The physical, emotional, social, moral, and intellectual development of secondary school youth.

Education 352 *Child Psychology* 2 Cr.

Prerequisite: Ed. 123

Psychological development of children. Emphasis on age groups spanning the pre-school and the pre-pubescent child; methods for scientific measurement and understanding of child behavior.

Education 430 *Industrial Psychology* 2 Cr.

Prerequisite: Ed. 123

Use of Psychological methods in personnel management in industry. Emphasis is on personnel policy formation and techniques in placement, interviewing, efficiency, job evaluation and training, merit rating, morale, and safety.

Education 431 *Abnormal Psychology* 2 Cr.

A study of more serious mental disturbances. Emphasis on the growing importance of mental disorders and on their early detection and referral.

Education 432 *Psychology of the Exceptional Child* 2 Cr.

Guidance of the learning and development of children who deviate from the normal, the mentally retarded, gifted, socially and emotionally disturbed, and those with visual, speech, and orthopedic problems.

Education 435 *Personnel Management* 3 Cr.Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

Ed. 513 Personality and Mental Health and Ed. 555 Psychology of Learning are restricted to graduate students. See the *Graduate Studies Bulletin* for course descriptions.

EDUCATION — AUDIO-VISUAL

Barnard, Hardman, Herbert

Education 360 *Audio-Visual Education* (1-2) 2 Cr.

Methods of selecting and using audio-visual materials effectively in teaching. Experience in operating equipment, production of materials, practice in planning and presenting a lesson.

Education 439 *Motion Picture Production* (0-4) 2 Cr.

Prerequisites: I.E. 205, Ed. 360, or consent of instructor

Production of instructional sound motion pictures utilizing "live" projects which will be marketed. Production planning, content research, treatments, storyboard, script writing, shooting, editing, sound recording, titling, and other technical problems of production.

Education 494 *Electronics Communications Systems* (2-0) 2 Cr.

Prerequisites: Ed. 360 and I.E. 343

Design and application of electronic systems to solve educational communications problems. Emphasis on central sound systems, acoustics, microphones, audio and video recording, kinescopes, intercoms, open circuits and closed circuit television, multiple response systems, and simulators. Administration and supervision of systems.

Ed. 522 Problems in Audio-Visual Instruction, Ed. 540 Advanced Technical Problems—Audio-Visual Education, Ed. 547 Communications Media Design, Ed. 551 Programmed Instruction, and Ed. 560 Audio-

Visual Administration are restricted to graduate students. See the *Graduate Studies Bulletin* for course descriptions.

EDUCATION—GUIDANCE

Bolstad, Duling, Hoffman, Jenson, Iverson, Klitzke,
Pedersen, Rimel, Ritland, Salyer, Wurtz

Education 401 *Introduction to Guidance and Counseling* 2 Cr.

Prerequisite: For education students, junior standing

An overview of policies and practices of organized guidance programs for schools and colleges. Emphasis is given to the philosophy and evaluation of guidance, understanding the individual, counseling, and group guidance as it affects the classroom teacher and personnel worker.

Education 429 *Guidance in the Elementary School* 2 Cr.

The nature and conditions of guidance in the elementary school. Curricular and non-curricular guidance techniques, referrals, and parent counseling. Recommended principles and practices in guidance applied to the elementary school child.

Education 475 *Counseling Procedures* 2 Cr.

Prerequisite: Ed. 401

Psychological study of the interview. Consideration given to various interview objectives, points of reference, kinds of questions, and the improvement of techniques for various purposes of the teacher and counselor.

Education 490 *Tests and Measurements in Counseling* 2 Cr.

Prerequisites: Ed. 401 and Ed. 441

Selection, interpretation, and use of tests and inventories for teachers and counselors. Study of achievement, aptitude, interest and personality tests with experience in the interpretation of results.

Education 491 *Occupational and Educational Information* 2 Cr.

Prerequisite: Ed. 401

Occupational and educational opportunities. Evaluation of information sources, occupational requirements, trends, and uses.

Education 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

Ed. 531 Problems in Guidance, Ed. 541 Individual Mental Testing, Ed. 543 Advanced Individual Mental Testing, Ed. 548 Diagnosis and Remediation of Learning Difficulties, Ed. 550 Appraising the Individual, Ed. 552 Group Guidance Procedures, Ed. 565 Organization and Ad-

ministration of Guidance, Ed. 590 Supervised Practice in Counseling, and Ed. 595 Clinical Practice in Educational Diagnosis are restricted to graduate students. See the *Graduate Studies Bulletin* for course descriptions.

EDUCATION — PROFESSIONAL TEACHER EDUCATION

Bolstad, Chinnock, Courtney, Duling, Klitzke, Harper, Hickner, Mamel, Phelps, Price, Prichard, Rosenthal, Rudiger, Salyer, Smalley, Spratt, Swanson, Turney, Wall, Walley, Wigen

To qualify for teacher education, students must have a grade point average of 2.25 at the time they take Ed. 304, *Introduction to Teaching*, and must maintain this average through the senior professional education semester. They must also have approval from the Health Department. If a physical examination blank signed by a physician is properly filled out, and of record in the office of the Health Department, and no known health problems exist, this approval is automatically provided by the school nurse who sends a signed form to the Dean of Student Affairs. Individuals facing special and temporary problems in health may apply for admission to the Student Personnel Committee for Teacher Education.

Students wishing to qualify for teacher education, must show proficiency in English by earning a "C" in the last course in English Composition or having a transfer record of "C" in such a course from another accredited college or university. If a deficiency exists, a student may elect to do remedial work in English to earn a "C" in the final examination of 102b, or earn a qualifying score on the Cooperative English Test administered by the University Counseling Center.

Students entering teacher education must also present evidence of speech proficiency. The speech requirement must be met before taking Ed. 304, *Introduction to Teaching*. All students are rated in the first required speech course as to their proficiency. Those rated as unsatisfactory are required to enroll in Speech 100, *Speech Improvement*, a non-credit course, until they are approved for teaching.

Education 222 *Principles of Secondary Education* 2 Cr.

Prerequisite: Ed. 123

The evolution, status, and trends of secondary education. Needs of our democratic society: philosophy, organizational problems, curriculum development, and the responsibilities of the individual teacher.

Education 234 *Activity Analysis* 2 Cr.

Study of analysis of activities for instructional purposes and for personnel work. Jobs, operations, information topics, blocking, custom oc-

cupations, service occupations, checking levels, progression factors defined. Development of a complete analysis of an occupation for instructional use.

Education 302, *Introduction to Teaching Art in Elementary Schools* 3 Cr.

The relationship of art experience to child growth and development.

Education 304 *Introduction to Teaching* 3 Cr.

Prerequisites: Ed. 222, Ed. 303, Overall grade point average—2.25
A methods course correlated with guided experiences involving directed observation and gradual assumption of teaching responsibilities in local schools. Includes the development of lesson plans, and teaching aids.

Education 305 *Methods of Teaching Industrial Education* 2 Cr.

Prerequisites: Ed. 234 and Ed. 303

Study of teaching methods in use in youth and adult shop classes. Instruction planning, methods of organization and management, instruction aids, professional ethics.

Education 307, *Introduction to Teaching Art in the Secondary Schools* 3 Cr.

Art in the public secondary schools.

Education 320 *Methods of Teaching Home Economics* 2 Cr.

Prerequisite or parallel: Ed. 303

Principles of teaching applied to the selection, organization, and development of home economics subject matter. For dieticians and other groups with specialized needs.

Education 402 *Principles of Vocational and Adult Education* 2 Cr.

The philosophy, historical development, principles and practices, and organization of public vocational-technical and adult education in the nation.

Education 404 *Curriculum Development* 5 Cr.

Prerequisite: Ed. 304, Overall grade point average—2.25

Development of an orderly procedure for the identification of concepts and generalizations and instructional units to be used in teaching. Construction of course outlines, including analysis of content, lesson planning, evaluation and management.

Education 408 *Student Teaching* 8 Cr.

Prerequisites: Ed. 404 and Ed. 401 (For Art majors Ed. 302 and Ed. 307)

Directed teaching and community experiences in selected off-campus schools.

Education 415 *Technical Education Programs* 2 Cr.

Prerequisite: Senior or Graduate Study

Philosophy, principles, organization, operation, and structure of technical education programs at the post-high school level.

Education 416 *Problems in Teaching Vocational and Adult Homemaking*

2 Cr.

Prerequisites: Ed. 402, Ed. 427, and three years of teaching vocational or adult homemaking.

Analysis of problems confronting experienced teachers; development of tentative solutions.

Education 428 *Home Economics for the Junior High School* 3 Cr.

Principles of curriculum development for the home economics program in the junior high school. Emphasis on recent research, philosophy, and emerging practices in program patterns.

Education 434 *Curriculum Development for Art* 2 Cr.

Practicum with various art media with special consideration given to their use and suitability in elementary and secondary school art programs.

Education 441 *Education Evaluation* 2 Cr.

Evaluative devices and their use in measuring student attainment of course objectives. Characteristics and limitations of different types of tests and test questions; the interpretation of test scores and grades by means of simple statistical procedures; methods of grading manipulative work and assigning final grades.

Education 443 *Organization of Content Material for Teaching Trade, Technical and Industrial Subjects* 2 Cr.

Prerequisite: Ed. 305 or equivalent

Individual work following approved practice in the development of instructional material for vocational-technical and adult teaching.

Education 462 *Workshop for Homemaking Teachers* 2 or 3 Cr.

Prerequisite: Teaching experience or consent of instructor

Planned for homemaking teachers in one or two teacher departments. Teachers select problems on which they wish to work.

Education 470 *Conference Leading* 2 Cr.

Prerequisite: Ed. 304 or equivalent

Study of teaching. Study and practice of the principles and techniques of conference leading as an instructional device in vocational education.

Education 472 *Coordination* 2 Cr.

Principles of coordination in vocational and adult education including apprenticeship training, business education, distributive education, home economics, trade and industrial education, and diversified occupations.

Education 479 *Public Relations* 2 Cr.

Defines the publics, objectives, and media of public relations in industry and education. Provides practice with such tools as news stories and features. Each student carries out an actual publicity program in the community.

Education 481 *American Higher Education* 2 Cr.

An introduction to the ramifications of the American system of higher education including history, philosophy, administration, curriculum, students, teachers, and demands for employment. Undergraduates by permission of the instructor only.

Education 488 *Internship Teaching* 8 Cr.

Prerequisites: Ed. 304 and 404

An alternate method of obtaining student teaching experience. Teacher interns receive a license to teach and salaried appointments in cooperating school systems for one full semester. They work closely with and under the continuous supervision of teachers and administrators in the cooperating schools.

Education 489 *Teaching and Supervision of Art* 2 Cr.

Prerequisite: Senior standing

Teaching methods adjusted to age and ability groups in elementary and secondary schools. For art minors.

Education 492 *Administration of Vocational and Adult Education* 2 Cr.

Survey and analysis of problems in the administration of a vocational-technical and adult school including legal status, policy making, staff personnel, student personnel, curriculum, evaluation, public relations, physical plant and business management.

Education 199, 299, 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

Ed. 500 Philosophy of Modern Education, Ed. 501 Research Procedures, Ed. 502 Principles of Supervision, Ed. 505 Social Thought of American Educators, Ed. 506 Problems of Supervision, Ed. 508 Curriculum Studies in Home Economics, Ed. 510 Applied Research, Ed. 518 The Woman in Today's World, Ed. 520 Current Problems in Home Economics Education, Ed. 527 Supervision of Student Teachers, Ed. 526 Administration, Ed. 533 Survey Procedures, Ed. 538 Elementary School Curriculum, Ed. 539 High School Curriculum, Ed. 544 Seminar in Home Economics Education, Ed. 551 Programmed Instruction, Ed. 561 Educational Statistics, Ed. 568 Curriculum Procedures II, Ed. 570 Thesis Plan A, Ed. 575 Problems in Home Economics Education are restricted to graduate students. See the *Graduate Studies Bulletin* for course descriptions.

HOME ECONOMICS

GENERAL

Pedersen, Ronaldson

Home Economics 100 *Orientation* 0 Cr.

An orientation course concerned with typical college problems. Personal, social, professional, and vocational guidance in the field of home economics.

CLOTHING AND TEXTILES

Batson, Kirkwood, Renn, Salyer, Todd, Van Ness, Wass

Home Economics 102 *Fundamentals of Clothing* (1-4) 3 Cr.
Fundamentals of clothing construction.Home Economics 102 (Honors) *Fundamentals of Clothing* (1-4) 3 Cr.

Prerequisite: Proficiency examination
Fundamentals of clothing construction in cotton, wool, and synthetics.
Demonstrations and illustrative materials.

Home Economics 218 *Clothing* (1-4) 3 Cr.
Prerequisite: H.E. 102

Personal and technical problems in the selection and construction of garments of wool and synthetic fabrics. Emphasis on fitting.

Home Economics 220 *Clothing Selection* (2-0) 2 Cr.
The importance of personal appearance and factors which contribute to it. Application of art principles to the selection of clothing.Home Economics 315 *Textiles* (2-2) 3 Cr.
Fibers, yarns, weaves, finishes, and design as applied to the selection of clothing and household fabrics.Home Economics 325 *Principles of Merchandising* (2-3) 3 Cr.
Merchandise with application of fundamentals for selling, buying, and marketing procedures for the clothing industry. Supervised experience on Saturdays or one month during the vacation period included.Home Economics 342 *Costume Millinery* (0-4) 2 Cr.
Prerequisite: H.E. 102
Basic fundamentals of designing and constructing fabric, straw, and felt hats; coordination of millinery and other accessories; procedures in purchasing supplies from wholesale houses.Home Economics 412 *Applied Dress Design* (1-4) 3 Cr.
Prerequisite: H.E. 218
Application of principles of costume design in the construction of gar

ments by means of draping. Emphasis on individuality in costume through appropriate use of line, proportion, color, and texture.

Home Economics 413 *Flat Pattern Design* (1-2) 2 Cr.

Prerequisites: H.E. 218 and H.E. 220

Application of principles in developing patterns of individual design from a basic foundation pattern. Fitting problems solved by using a basic pattern made in muslin.

Home Economics 415 *Economics of Family Clothing* (3-0) 3 Cr.

Prerequisite or parallel: S.S. 309

Introduction to patterns of clothing consumption, production, and distribution as they relate to the family. Individual reports and papers.

Home Economics 465 *European Study Tour* 3-6 Cr.

Study tour introducing students to national and international centers of influence in art, clothing, and textiles. Six-week tour of European mills and fashion centers.

Home Economics 471 *History of Costume* (2-0) 3 Cr.

Development of costume throughout the ages. Fashion as it reflects the social climate of the period; factors which influence change in fashion; qualities in style that make for lasting beauty; influence of the past on present-day costume.

Home Economics 473 *Clothing and Textile Industry* (3-0) 3 Cr.

Prerequisite: H.E. 415

The clothing and textile industry, its organization, promotion methods, and the interrelationship of the major factors of the industry and its markets.

Home Economics 480 *Sociological and Psychological Aspect of Family Clothing* (3-0) 3 Cr.

Effects of mores, social and cultural factors upon dress. Psychological and aesthetic aspects of clothes. Social and psychological effects of clothing upon the life of the individual.

H.E. 500 Tailoring, H.E. 505 Clothing Today's Family, H.E. 514 Seminar in Clothing and Textiles, H.E. 544 Workshop in Clothing and Textiles, H.E. 551 Problems in Clothing and Textiles, and H.E. 572 Advanced Textiles are restricted to graduate students. See the *Graduate Studies Bulletin* for course descriptions.

FAMILY RELATIONS AND CHILD DEVELOPMENT

Mills, Rimel, Smith

Education 326 *Psychology of Marriage and the Family* 2 Cr.

A study of the interpersonal relations involved in dating, mating, and family collaboration with growing awareness of patterns for self integration.

Home Economics 334 *Personality Growth and Development of the Child* 3 Cr.

Prerequisites: Ed. 123 and junior standing
Personality growth of the child, physically, mentally, emotionally, and socially with guidance implications on the basis of growth. Observation in child development laboratory.

Home Economics 424 *Principles and Practices of Child Guidance* 2 Cr.
Prerequisite: H.E. 334

Factors and principles involved in the personality development of the pre-school child and their application to the experiences of the children in the child development laboratories. Evaluation of the literature in this field. Assist in the nursery school.

Home Economics 427 *Workshop in Family Life* 2 Cr.

Concentration on today's problems confronting family members from infancy to senior citizenship. Emphasis on the exchange of ideas and awareness of feelings and attitudes between and among persons.

FOOD, NUTRITION, DIETETICS, AND FOOD SERVICE ADMINISTRATION

Carrison, Cotter, Curtis, James, Jones,
Killian, Meiller, Pagel, Shappley, Viens

Home Economics 114 *Food Preparation I* (3-4) 5 Cr.
Basic principles and modern techniques used in the preparation of acceptable food products.

Home Economics 212 *Nutrition* (2-2) 3 Cr.
Prerequisite: H.E. 114
Principles of human nutrition and application in the selection of food for members of the family group.

Home Economics 230 *Food Preparation II* (2-2) 3 Cr.
Prerequisite: H.E. 114
Basic standards and methods involved in the appraisal, preparation, and preservation of food.

Home Economics 300 *Applied Institution Management* (1-4) 3 Cr.
Prerequisite or parallel: H.E. 308
Preparation and service of meals in the college tea room. Meal planning, recipe selection, economical use of materials and time, dining room management, food preparation, and cost control.

Home Economics 308 *Meal Management* (2-2) 3 Cr.
Prerequisite: H.E. 212

Planning, preparation, and service of meals. Management of money and time, efficient use of equipment, consideration of nutrition needs, food habits and social customs of family groups.

Home Economics 310 *Nutrition and Dietetics* (2-2) 3 Cr.

Prerequisites: H.E. 212, Sc. 322, and Sc. 362

Fundamental principles of human nutrition applied to individual, family, community, and world problems.

Home Economics 328 *Food Service Administration* 3 Cr.

Prerequisite or parallel: H.E. 308

Organization and administration of food service in institutions. Personnel management, cost control, and sanitation and housekeeping.

Home Economics 418 *Diet Therapy* (2-2) 3 Cr.

Prerequisite or parallel: H.E. 310

Principles and methods for the use of diet as a therapeutic measure in certain pathological conditions.

Home Economics 438 *Experimental Food* (0-6) 3 Cr.

Prerequisites: H.E. 230 and Sc. 115

Experimentation with selected food materials, techniques, and equipment. Opportunity for directed study in an individually chosen area.

Home Economics 441 *Food Service Accounting* 3 Cr.

Prerequisite: H.E. 328

Fundamental principles of accounting. Preparation and use of accounting records, financial reports, food cost records, and subsidiary food service records.

Home Economics 442 *Advanced Food Studies* (1-2) 2 Cr.

Prerequisites: H.E. 230 and H.E. 308

Based on the student's special interest in the field of food selection, preparation, and appraisal.

Home Economics 443 *School Food Service* 2 or 3 Cr.

Prerequisite: H.E. 308

Organization and administration of type A school lunch program. Menu planning, food specifications and purchasing, cost control, personnel management, sanitation and housekeeping, equipment selection and layout.

Home Economics 452 *Quantity Food Production and Service* (1-4) 3 Cr.

Prerequisite: H.E. 328

Theory and practice in a quantity food service including sanitation, cost studies, menu planning, principles of quantity food preparation and service, food receiving and storage, and use and care of equipment.

Home Economics 454 *Institution Food Purchasing* 2 Cr.

Prerequisite: H.E. 328

Methods of purchasing food in large quantities. Determination of standards, specific needs, and industrial offerings; formulation of specifications, buying procedures, and controls.

Home Economics 455 *Food Service Equipment* 2 Cr.

Prerequisite: H.E. 328

Equipment for institution food service. Materials, construction, operation, installation and use; layout analysis and planning.

Home Economics 463 *Problems in Food Service Administration*
(0-4 or 6) 2 or 3 Cr.

Prerequisite: H.E. 328

Directed individual work in selected problems. Laboratory problems in the college food service units.

Home Economics 475 *Advanced Food Production Management*
(1-4) 3 Cr.

Prerequisite: H.E. 452

Further opportunity is provided for advanced study and laboratory experience in quantity food production and service. Experience is gained in organizing preparation procedures, calculating costs and portion control. Problems encountered in food service operation are reviewed, discussed and evaluated.

Home Economics 476 *Nutrition Education for the Elementary Grades*
2 Cr.

Basic nutrition for teachers of elementary school children.

H.E. 501 Trends in Nutrition, H.E. 508 Food Seminar, H.E. 511 Nutrition Seminar, H.E. 513 Seminar in Food Service Administration, H.E. 546 Modern Methods in Food Preparation, H.E. 547 Problems in Food and Nutrition, and H.E. 556 Advanced Experimental Food are restricted to graduate students. See the *Graduate Studies Bulletin* for course descriptions.

HOME MANAGEMENT AND FAMILY ECONOMICS

Clure, Rose, Trullinger

Home Economics 317 *Consumer Information* (3-0) 3 Cr.

Motives in consumption; family incomes and expenditures, selection of commodities and services; buying and selling practices. Evaluation of consumer aids and investigation of local situations.

Home Economics 318 *Family Health and Home Nursing* (1-2) 2 Cr.

Necessary factors in maintaining the health of the family. Includes the Red Cross course in Home Care of the Sick. Students earn Red Cross certificate.

Home Economics 333 *Home Equipment and Applied Physics* (2-2) 3 Cr.

General laws and principles of physics as applied particularly to household appliances and the home. The selection, operation, uses, and care of home equipment.

Home Economics 400 *Demonstration Techniques* (0-4) 2 Cr.

Prerequisite: H.E. 230

The application of demonstration principles in planning and presenting all types of demonstrations.

Home Economics 403 *Home Management* 4 Cr.

Prerequisite: H.E. 308

Management of family resources for the attainment of successful family life, social aspects and adjustments of group and family living. Residence in one of the home management houses with homemaking and managerial experiences.

Home Economics 428 *Family Economics* 2 Cr.

Prerequisite: S.S. 201

Management in relation to personal and family finance. Practical applications for young adults in such areas as budgeting income and expenses, planning adequate insurance, financing a home, and providing for savings and investments.

LIBERAL STUDIES

ART

Boppel, Fumagalli, Jerry, Kotin, Marcus, Niessen, Smith,
Uanek, Will, Williams, Wilson

A minor in Art consists of 22 semester hours. Required courses are A. 106 or I.E. 201, A. 200, A. 300, A. 320, and A. 431. Additional courses will be selected from A. 206, A. 332, A. 334, A. 410, A.424, A. 440, A.451, and Art History courses. Education majors who are selecting the art minor are required to take Ed. 489 in addition to the 22 hours described above. Art History courses. Education majors who are selecting the art minor are required to take Ed. 489 in addition to the 22 hours described above.

STUDIO COURSES IN ART

Art 106 *Fundamentals of Design* (0-6) 3 Cr.

Elementary design in two and three dimensions using various media with the intention of developing visual sensitivity.

Art 200 *Drawing* (0-6) 3 Cr.

Concentration on the development of visual sensitivity through drawing with various media.

Art 300 *Painting* (0-6) 3 Cr.

Introduction to the character and use of various painting media. Work from still life and life with reference to problems of two dimensional color composition.

Art 320 *Sculpture* (0-6) 3 Cr.

Prerequisite: A. 106 or equivalent
Introduction to sculptural concepts.

Art 332 *Design* (0-6) 3 Cr.

Prerequisite: A. 106 or equivalent
Development of ideas presented in A. 106 in depth and complexity. May be repeated.

Art 334 *Interior Design* (1-4) 3 Cr.

Prerequisite: A. 106
Problems involving the design, selection, and arrangement of furnishings for living and working quarters.

Art 400 *Crafts* (0-6) 3 Cr.

Prerequisite: A. 106 or equivalent
Emphasis on original designs in metal, leather, enamel, and weaving.

Art 401 *Drawing* (0-6) 3 Cr.

Prerequisite: A. 200
Continuation of A. 200, with emphasis placed on the exploitation of media for creative and expressive ends. May be repeated.

Art 402 *Painting* (0-6) 3 Cr.

Prerequisite: A. 300
Advanced work in oil painting, with reference to the exploitation of the medium for creative and expressive ends. May be repeated.

Art 403 *Sculpture* (0-6) 3 Cr.

Prerequisite: A. 320
Advanced problems in sculpture with reference to the exploitation of media for creative and expressive ends. May be repeated.

Art 410 *Ceramics* (0-6) 3 Cr.

Basic design and techniques of ceramic production for the artist-potter; forming, firing, and decorating.

Art 411 *Ceramics* (0-6) 3 Cr.

Prerequisite: A. 410
Techniques in the use of clay, glazes, and kiln for the design and production of high fired ceramics. May be repeated.

Art 420 *Life Drawing* (0-6) 3 Cr.

Prerequisite: A. 200

The human figure in action and at rest. Problems in figure composition.

Art 421 *Life Drawing* (0-6) 3 Cr.

Prerequisite: A. 420

Advanced problems in figure composition and in graphic interpretation of the figure. May be repeated.

Art 423 *Problems in Interior Design* (0-4) 2 Cr.

Prerequisite: A. 334

Advanced work in the design, selection and arrangement of furnishings for living and working quarters. May be repeated.

Art 424 *Weaving* (0-4) 2 Cr.

Design and production of hand woven textiles on a variety of looms.

Art 425 *Weaving* (0-4) 2 Cr.

Prerequisite: A. 424

Advanced problems in weaving. May be repeated.

Art 436 *Costume Design* (0-4) 2 Cr.

Prerequisite: H.E. 218

Development of original designs for clothing. May be repeated.

Art 440 *Art Metal* (0-6) 3 Cr.

Prerequisite: A. 106 or equivalent

The design and construction of objects in precious metals.

Art 441 *Art Metal* (0-6) 3 Cr.

Prerequisite: A. 440

Advanced problems in the design and construction of objects in precious metals. May be repeated.

Art 448 *Housing* (0-6) 3 Cr.

Prerequisite: A. 106 or equivalent

Problems in dwelling construction with consideration given to location of the lot, family activities, materials, and cost.

Art 451 *Printmaking* (0-6) 3 Cr.

Prerequisite: A. 106 or equivalent

Introduction to printing media used by the fine artist. Etching, engraving, lithography, serigraphy, wood block, and wood cut and contemporary developments in relief and intaglio printing.

Art 452 *Printmaking* (0-6) 3 Cr.

Prerequisite: A. 451

Continuation of A. 451 with emphasis on the exploitation of the printing media for creative and expressive ends. May be repeated.

Art 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

ART THEORY AND ART HISTORY

Art 206 *Introduction to Art* 2 Cr.

Principles of visual organization, the expressive possibilities offered by materials and the levels of meaning and appreciation possible in the visual arts.

Art 390 *Modern Art* 3 Cr.

The main currents and developments in art from Monet and Cezanne to 1950.

Art 430 *Survey of Art: Ancient Through Medieval* 3 Cr.

The painting, sculpture, architecture and minor arts in the ancient western world.

Art 431 *Survey of Art: The Renaissance through to the 20th Century*

3 Cr.

Sculpture, painting, architecture and minor arts of the western world from 14th Century to present.

Art 480 *Egyptian and Mesopotamian Art* 3 Cr.

The evolution of the arts of ancient Egypt and the Near East.

Art 481 *Greek and Roman Art* 3 Cr.

The arts of ancient Greece and Rome.

Art 482 *Medieval Art* 3 Cr.

The arts of Europe and Byzantium from the later Roman Empire to the end of the Middle Ages.

Art 483 *Italian Renaissance Art* 3 Cr.

The problems and the evolution of Italian Renaissance sculpture and painting from the 14th to the 18th Century.

Art 484 *Northern Renaissance Art* 3 Cr.

The evolution of Renaissance art in northern Europe from the 15th to the 18th Century.

Art 490 *Nineteenth Century Art in Europe*

History of European art from about 1800 to 1900.

Art 491 *Art Since 1950* 3 Cr.

Developments in painting and sculpture in Europe and America since 1950.

Art 492 *Oriental Art* 3 Cr.

Art from prehistoric times to the 19th Century in India and the Asian sub-continent.

Art 493 *Oriental Art* 3 Cr.

Art from prehistoric times to the 19th Century in China, Japan, and their spheres of influence.

Art 498 *Esthetics* 3 Cr.

A seminar based on a study of statements by philosophers on art.

Art 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

A. 556 Seminar in Art is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

ENGLISH AND JOURNALISM

ENGLISH

Bennett, Boc, Byrns, Dittbrenner, Friedrich, McDuffee
Moore, Phelps, Rathke, Sather, Shea

A minor in English consists of 22 semester hours. Required courses are E. 346, E. 348, and E. 400a and b. Additional English courses, excluding E. 102a and b, will be selected; E. 102a (Honors) and E. 102b (Honors) may be included. One course in journalism, either E. 306 or E. 410, and one course in speech, either Sp. 320, 340, or 444, may be included.

English 102a *English Composition* 3 Cr.

Basic writing course with emphasis on sentence and paragraph construction and organization of ideas.

English 102b *English Composition* 3 Cr.

Prerequisite: E. 102a

A continuation of E. 102a. Designed to increase effectiveness in writing. History of the English language and vocabulary study. Emphasis on techniques and preparation of the research paper, including taking notes, making bibliography, organizing and limiting material, and acknowledging sources by proper documentation.

English 102a (Honors) *English Composition* 3 Cr.

Prerequisite: Departmental selection on basis of ability

Readings in world literature and related writing designed for training in techniques of composition.

English 102b (Honors) *English Composition* 3 Cr.

Prerequisite: Departmental selection on basis of ability

Continuation of E. 102a (Honors). Includes the writing of a documented paper.

English 216 *English Literature* 3 Cr.

Prerequisite: E. 102b

A short survey of English prose and poetry

English 250 *Ancient Literature in English Translation* 3 Cr.

Prerequisite: E. 102b

Selections from Greek, Hebrew, and Latin literature.

English 346 *Expository Writing* 3 Cr.

Prerequisite: E. 102b

The writing of short reports, definitions, directions, book reviews, and a documented investigative paper.

English 348 *American Literature* 3 Cr.

Prerequisite: E. 102b

American prose and poetry from its beginnings.

English 350 *Modern British Writers* 3 Cr.

Prerequisite: E. 102b

Selected poetry, prose, and fiction.

English 400a *English Literature* 3 Cr.

Prerequisite: E. 102b

English prose and poetry from Beowulf to 1798.

English 400b *English Literature* 3 Cr.

Prerequisite: E. 216 or E. 400a

English prose and poetry from 1798 to modern times.

English 402 *Fiction* 3 Cr.

Prerequisite: E. 102b

An understanding of fiction achieved through the reading and discussion of representative novels.

English 404 *Poetry* 2 Cr.

Prerequisite: E. 102b

Works of representative American and English poets of the late nineteenth and twentieth centuries.

English 406 *Shakespeare* 3 Cr.

Prerequisite: E. 102b

Representative plays of Shakespeare. Study of twenty plays and selected criticism.

English 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

JOURNALISM

Phelps

A minor in journalism consists of 22 semester hours. Required courses are E. 306, E. 410, E. 425, Ed. 479, I.E. 117, I.E. 205, and E. 415 or E. 416. Additional courses will be selected from A. 106, E. 216, E. 348, I.E. 259, I.E. 361, I.E. 449, S.S. 311, S.S. 407, S.S. 410, S.S. 411, S.S. 417, and Sp. 470.

English 306 *Reporting and News Writing* 2 Cr.

Prerequisite: E. 102b

Theory and practice of news gathering and reporting, journalistic style, copy and proof reading. Discriminative newspaper reading; the history of journalism, libel.

English 410 *Writing and Selling Feature Articles* 2 Cr.

Prerequisite: E. 102b

Practice in techniques of writing and selling feature articles for appropriate markets. Students are required to submit articles for potential publication.

English 415 *Technical Writing for Home Economics* 3 Cr.

Prerequisite: E. 346 or consent of instructor

An overview of specialized writing done by home economists in business. Experience in preparing reports, letters, and other appropriate materials.

English 416 *Technical Writing for Industry* 3 Cr.

Prerequisite: E. 346 or consent of instructor

A survey of the type of writing current in industry. Writing of business reports and other materials.

English 425 *Copy Editing and Preparation* 2 Cr.

Prerequisite: I.E. 117 or consent of instructor

Development of skill in expanding and reducing written materials. Experience in copy reading, proof reading, headlines.

Education 479 *Public Relations* 2 Cr.

Defines the publics, objectives, and media of public relations in industry and education. Provides practice with such tools as news stories and features.

FOREIGN LANGUAGES

French 101a *Elementary French* 4 Cr.

Introduction to the study of the language; reading, writing, composition, and special emphasis on conversation.

French 101b *Elementary French* 4 Cr.

Prerequisite: Fr. 101a.

Continuation of Fr. 101a.

French 201a *Intermediate French* 4 Cr.

Prerequisite: Fr. 101b or two years of high school French.

Extensive and intensive reading in the language; review of grammar and oral practice.

French 201b *Intermediate French* 4 Cr.

Prerequisite: Fr. 201a

Continuation of Fr. 201a.

Spanish 101a *Elementary Spanish* 4 Cr.

Introduction to the study of the language; reading, writing, composition, and special emphasis on conversation.

Spanish 101b *Elementary Spanish* 4 Cr.

Prerequisite: Span. 101a.

Continuation of Span. 101a.

MATHEMATICS

Boardman, Gauthier, Gierke, Jones, Maki, Miller, Reneson, Streed

A minor in mathematics consists of 22 semester hours. Required courses are the M. 250a and b and 315a and b sequence or the M. 260a b, and c sequence. Additional mathematics courses numbered 300 or higher will be selected under guidance of the department.

Entrance into courses M. 100, 209, 250a, or 260a is based on ability as demonstrated by high school record and a proficiency test.

Mathematics 100 *Fundamentals of Algebra* 0 Cr.

Prerequisite: Demonstrated proficiency

Review of the fundamentals of high school algebra.

Mathematics 110 *Slide Rule Principles and Operations* 1 Cr.

Scientific notation, principles of the slide rule, and basic operations including multiplication, division, ratio and proportion, powers and roots.

Mathematics 209 *College Algebra* 4 Cr.

Prerequisite: Demonstrated proficiency

Fundamentals of college algebra from a modern approach, including sets, the logic of algebra, and functions.

Mathematics 212 *Computational Statistics* 2 Cr.

Prerequisite: M. 209 or equivalent

Organization and presentation of data, computation of descriptive constants, sampling theory, normal, binomial, and chi-square distributions. statistical inference, tests of hypothesis, regression and correlation theory.

Mathematics 213 *Trigonometry* 3 Cr.

Prerequisite: M. 209

Introduction to the elements of trigonometry and the transcendental functions. Solution of triangles, logarithms.

Mathematics 240 *Digital Computer Programming* 2 Cr.

Prerequisite: M. 209 or equivalent

Introductory machine language and symbolic programming systems. Emphasis on basic Fortran and numerical methods of problem solving.

Mathematics 250a *Mathematical Analysis* 4 Cr.

Prerequisite: Demonstrated proficiency

Nature of mathematics. The number system, functions, exponents and radicals, sets and matrices, inequalities, permutations, combinations, and probability. Not open to students who have completed M. 260a, b, and c.

Mathematics 250b *Mathematical Analysis* 4 Cr.

Prerequisite: M. 250a

Algebraic, exponential, logarithmic, and trigonometric functions. Analytic geometry. Intuitive calculus.

Mathematics 260a *Calculus and Analytic Geometry* 5 Cr.

Prerequisite: Demonstrated proficiency

A review of real numbers, inequalities, absolute values, intervals, and continuity. Analytic geometry of the plane. Limits, functions, and the derivative of algebraic functions. Not open to students who have completed M. 250a and b.

Mathematics 260b *Calculus and Analytic Geometry* 5 Cr.

Prerequisite: M. 260a

Elaboration and application of the derivative and the definite integral. Conic sections and other algebraic curves. Calculus for special classes of functions: rational, algebraic, circular, exponential, trigonometric. Techniques of formal integration.

Mathematics 260c *Calculus and Analytic Geometry* 5 Cr.

Prerequisite: M. 260b

Review of formal integration, parametric equations, polar representation, Simpson's Rule, Cauchy's Formula, Taylor's Theorem, infinite series, solid analytic geometry, vectors, partial differentiation, multiple integration.

Mathematics 314 *Analytic Geometry* 3 Cr.

Prerequisite: M. 213

Algebraic treatment of geometry. Graphical analysis of the straight line, the circle, and conic sections. Not open to students who have completed M. 250a and b, or M. 260a, b, and c.

Mathematics 315a *Calculus* 4 Cr.

Prerequisite: M. 314 or M. 250b

Functions, limits, continuity, bounds. Derivative of functions with applications. Antiderivative and integration. Not open to students who have completed M. 260a, b, and c.

Mathematics 315b *Calculus* 4 Cr.

Prerequisite: M. 315a

Continuation of M. 315a. Integration theory, techniques, and application. Additional topics in calculus.

Mathematics 320 *Differential Equations* 3 Cr.

Prerequisite: M. 315b or M. 260c

Common types of ordinary differential equations of the first and second orders, linear equations with constant coefficients, series solutions, numerical approximations, partial differential equations, and systems of ordinary equations.

Mathematics 325a *Modern Algebra* 3 Cr.

Prerequisite or parallel: M. 315b or M. 260b

Logical derivation of abstract algebra including elementary theory of equations. Beginning of the modern development of groups, fields, and rings.

Mathematics 325b *Modern Algebra* 3 Cr.

Prerequisite: M. 325a

Continuation of M. 325a. Emphasis on systems of mathematics, integral domains, rings, groups, and fields. Introduction to vector spaces and matrices.

Mathematics 330 *Modern Geometry* 3 Cr.

Prerequisite: M. 315a or M. 260a

Introduction to plane and solid analytic geometry by means of vectors. Lines, conics, spheres, planes, second and third order determinants, distance functions, loci, vector products, transformation of coordinates.

Mathematics 340 *Advanced Computer Programming* 2 Cr.

Prerequisite: M. 240

Symbolic programming systems; advance Fortran programming, and introductory Cobol and other systems. Introduction to numerical analysis.

Mathematics 400 *Mathematical Statistics* 3 Cr.

Prerequisite or parallel: M. 315b or M. 260b

The mathematical treatment of statistical data including frequency distribution, probability and probability distributions; binomial, Poisson, and normal distributions. Sampling techniques and treatments.

Mathematics 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program advisor, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

MUSIC

Cooke, Pritchard

The objective of the Stout music department is to provide musical experience and opportunities for the development of understanding and appreciation of music. The study of this art not only enhances intellectual acumen but also provides aesthetic enjoyment and aids in the development of social coordination through group effort. The organizations seek to further the interests of musical culture and entertainment and to enhance the spirit and character of the college.

The music organizations are open to any student in the college who can qualify and may be taken for credit as academic electives. All students are invited to attend concerts and may elect music courses and organizations for college credit.

Music 134 *Rudiments of Music* 1 Cr.

An integrated survey course in the fundamentals of musicianship: solfeggio, practical harmony, history, notation, conducting, arranging, basic principles of music education, acoustics, appreciation, and aesthetics.

Music 153a *Music Appreciation* 2 Cr.

The materials of music as they pertain to perceptive listening. Study is related to the music of the nineteenth century and seeks to lead the student to a significant awareness of great music.

Music 153b *Music Appreciation* 2 Cr.

Prerequisite: Mu. 153a

The materials of music are continued in relation to the music of periods not covered in Mu. 153a with emphasis on the twentieth century and the American scene.

Music 165 *Glee Club* 0 Cr.

Testing and classification of voices, basic principles of good choral technique. Provides the training necessary for membership in the Symphonic Singers.

Music 166 *Marching Band* ½ Cr. per Qr.

Prerequisite: Satisfactory high school record in instrumental music Fundamentals of marching and playing. Performance at all parades and football games. Marching band is allowed to substitute for P.E. during the year or years in which P.E. is required. The credit shall be P.E. credit and the grade given shall be an average of the first semester band grade and the second quarter P.E. grade. Men are limited to one half credit of P.E. credit in such a manner, women one credit.

Music 168a *Voice Class* 0 Cr.

Prerequisite: Mu. 165 or equivalent

Study of voice production, principles of singing and song materials.

Music 168b *Class Instruction in Band and Orchestra Instruments* 0 Cr.

Prerequisite: Mu. 266 or equivalent

A practical course in problems relating to embouchure, tone production, mechanics of the instrument, fingering and tonguing technique, and musicianship.

Music 234 *Advanced Topics of Music* 1 Cr.

Prerequisites: Mu. 134, and membership in Symphonic Singers or Concert Band.

A continuation of Mu. 134, with considerable freedom of specialization according to individual needs, interests, and ability.

Music 266 *The Stout Concert Band* 1 Cr.

Membership by audition only. Fundamentals of musical expression, tone production and quality, and special problems of technique. Formal concerts and radio broadcasting. Each spring instrumentalists are selected for the annual spring tour.

Music 267 *The Stout Symphonic Singers* 1 Cr. per year

Membership by audition only. Advanced choral techniques, reading and analysis of choral music of all types and periods. Some work with instrumental accompaniment. Each spring vocalists are selected for the annual spring tour.

Music 268 *Solo and Ensemble* 1 Cr. per year

Prerequisites: Mu. 266 or Mu. 267 and approval of staff

Coaching of advanced performers, both vocal and instrumental, for public performance and radio work.

Music 290 *Public School Music* 1 Cr.

Prerequisites: Mu. 234 and membership in Symphonic Singers or Concert Band

The fundamentals of public school music, with special emphasis on the methods, materials, and administration of music in the elementary and secondary school.

Music 100, 200, 300, 400 *Applied Music* 0 or 1 Cr.

Prerequisite: Placement Test

Private lessons available in voice and on brass, woodwind, string, and percussion instruments. Special fees for private lessons.

PHILOSOPHY

Sather

Philosophy 101 *Introduction to Philosophy* 3 Cr.

Introduction to the various fields of philosophy, the history of philosophy, and the nature of philosophical investigations.

PHYSICAL EDUCATION AND COACHING

MEN

Johnson, Mintz, Raarup, Sparger

If an excuse or deferment from P.E. is necessary for health reasons, the student must report to the college Health Service for temporary or permanent excuse. Permanent excuses must be filed in the Office of the Registrar as well as in the Office of Physical Education.

If a student, on his first entrance at Stout, requests exemption from the physical education program, such requests must be made to the Dean of the School of Applied Science and Technology. Entering students over 21 years of age (at date of first entrance) are exempt from the physical education requirement. Transfer students must abide by the above regulation. Credit is extended on the basis of the student's transcript.

The P.E. requirements for any quarter can be met by becoming a bonafide member of a regular athletic squad during that quarter. Registration cards must be made by all reporting for athletic competition for credit. Athletic competition does not supplant the swimming requirements.

Physical Education 101 *Personal Health* 1 Cr.

Personal and general hygiene for the improvement of living. Considers health in terms of life values.

Physical Education 127 *Physical Education* 1 Cr.

One year or 2 credits of Physical Education is required of all men. The following activities are offered on the quarter basis at $\frac{1}{2}$ credit each. One quarter ($\frac{1}{2}$ credit) of swimming is required and the remaining credits are to be elected. Archery, bowling, football and soccer, golf, swimming (beginning), swimming (advanced), badminton and tennis, basketball and speedball, volleyball, weight training, tumbling and apparatus, softball and track.

Physical Education 150 *Principles of Physical Education* 2 Cr.

The principles of physical education based on scientific facts and expression of educational ideals. Aims and objectives of physical education as applied to various school levels.

Physical Education 220 *Gymnastics* 2 Cr.

Elements of gymnastic tumbling and the use of gymnastic apparatus as a part of a modern program of physical education.

Physical Education 225 *First Aid and Athletic Training* 2 Cr.

Prerequisite: P.E. 101

Application of the principles and practice of the American Red Cross first aid; theory and practice to principles and techniques underlying athletic training and conditioning.

Physical Education 227 *Advanced Swimming* 2 Cr.

Prerequisite: P.E. 127

A course of instruction and participation in advanced swimming and diving skills.

Physical Education 325 *Recreational Leadership* 2 Cr.

Objectives, principles, methods, and content of a recreational program. Problems of facilities, equipment, and leadership. Organization and administration of a recreational program for various age levels.

Physical Education 350 *Individual and Dual Sports* 2 Cr.

History and theories of play. Rules and regulations of individual and dual sports. Badminton, tennis, table tennis, bowling, golf, archery, horseshoes, and practice of the various skills.

Physical Education 450 *Organization and Administration of Physical Education* 2 Cr.

Prerequisite: P.E. 127

The problems that arise in everyday experience of the instructor in physical education. The relationship of physical education to general education; objectives of physical education, utilization, planning and care of facilities and equipment; time allotment, classification of activities and children, leadership organization, supervision, routine procedures.

Physical Education 455 *Team Sports* 2 Cr.

Fundamentals and teaching knowledge of the following sports: touch football, soccer, softball, speedball, volleyball, basketball, hockey, and games leading up to team sports.

Physical Education 460 *Coaching* 2 Cr.

Fundamentals and methods of teaching and coaching football and basketball. Specific techniques analyzed. Definite plan of offense and defense presented. Rules, practice schedules, fundamentals, theories, and their application.

Physical Education 470 *Coaching* 2 Cr.

Fundamentals and methods of teaching and coaching baseball and track. Specific techniques analyzed. Definite plan of offense and defense presented. Rules, practice schedules, fundamentals, theories, and their application.

INTRAMURAL ATHLETICS

A complete program of all seasonal sports consisting of an "Athletics for All" aim is available to all students. Organized tournaments are conducted during the year in archery, badminton, basketball, bowling, golf, horseshoes, softball, swimming, table tennis, tennis, touch football, volleyball, and track. Varsity letter winners are not eligible to participate in

the sport in which they have lettered. The facilities and equipment of the Physical Education Department are available to students for recreation when there are no scheduled activities.

WOMEN

Dobrunz

One year (4 quarters with a total of 2 credits) of physical education is required of all women students during their freshman year. One quarter of body building and one quarter of swimming must be included. Each student is urged to select one individual sport to be used as a hobby during the sophomore, junior and senior years and is encouraged to take one sport to be used in intramural and extramural competition.

Entering students over 21 years of age (at date of entrance) may be exempt from physical education requirements. Transfer students must abide by the above regulation. Credit is extended on the basis of the student's transcript.

If an excuse or deferment from physical education is necessary for health reasons, the student must report to the college Health Service for a permanent or temporary excuse. Permanent excuses must be filed in the Registrar's Office as well as in the Office of Physical Education.

Physical Education 128a *Physical Education I* 1 Cr.

Freshman women students may select two activities from the following offerings: body building, beginners' swimming, intermediate swimming, basketball, tennis, badminton, field hockey, volleyball, Red Cross senior lifesaving, speedball and soccer, archery, golf, gymnastics, rhythms.

Physical Education 228b *Physical Education I* 1 Cr.

Freshman women students may select two activities from the following offerings: body building, beginners' swimming, intermediate swimming, archery, golf, rhythm, softball, tennis, pre-instructors' swimming, Red Cross instructors' swimming, aerial tennis, badminton, bowling.

Physical Education 228a *Physical Education II* 1 Cr.

Sophomore women students may select two activities from the following offerings: beginners' swimming, intermediate swimming, aerial tennis, deck tennis, badminton, bowling, field hockey, volleyball, shuffleboard, table tennis, Red Cross senior lifesaving.

Physical Education 228b *Physical Education II* 1 Cr.

Sophomore women students may select two activities from the following offerings: beginners' swimming, intermediate swimming, archery, basketball, bowling, rhythm, softball, tennis, golf, pre-instructors' swimming, Red Cross instructors' swimming.

RECREATION

The Women's Recreation Association is organized for the purpose of promoting recreational activities for all students on campus. Organized tournaments are conducted in many sports giving all members an opportunity to earn an emblem, pin, and letter. Social as well as corecreational and coeducational opportunities are made available to students through the W.R.A.

The Women's Recreation Association is a member of the Wisconsin Athletic and Recreation Federation of College Women and participates in the state college and university extramural tournaments.

SCIENCE

BIOLOGY

Arneson, Dickmann, Lowry, Marshall, Olson, Randerson

A minor in biology consists of 22 semester hours. Required courses are Sc. 122, Sc. 214, Sc. 306, Sc. 314, and Sc. 316. Additional courses will be selected.

Science 122 *General Biology* (1-4) 3 Cr.

Plants and animals and their importance to human welfare. The fundamental structures that determine an organism's mode of life; origin, development, inheritance, distribution, and interrelationships of plants and animals.

Science 214 *Physiology and Anatomy* (1-4) 3 Cr.

Prerequisite: Sc. 122

Human anatomy based on dissection of the cat and other laboratory material; fundamental physiological processes of all the organ systems; embryological development.

Science 306 *General Bacteriology* (1-4) 3 Cr.

Prerequisite: Sc. 122

Structure and physiology of yeasts, molds, and bacteria. Growth requirements; methods used in culture and identification; introductory studies in bacterial analysis of water and milk; other problems in sanitation, food bacteriology.

Science 314 *Botany* (2-2) 3 Cr.

Prerequisite: Sc. 122

An introduction to the structure and physiology of plants; survey of the plant kingdom; structure and life history or representative forms of plant life.

Science 316 *Zoology* (2-2) 3 Cr.

Prerequisite: Sc. 122

Survey of the animal kingdom; structure and physiology of representative animals; evolutionary relationships.

Science 362 *Advanced Physiology*

(1-4) 3 Cr.

Prerequisites: Sc. 115 and Sc. 214

Physiological processes of digestion, respiration, metabolism, excretion, circulation, and muscle action. Histological and quantitative studies of blood; experiments on frog and turtle hearts; nerve and muscle preparations. Respiratory, nerve, circulatory, and muscle experiments on the human body.

Science 432 *Heredity and Eugenics*

2 Cr.

Prerequisite: Sc. 122

The essential principles of genetics and eugenics and their application to the human family. Physical, physiological, and mental traits in man; positive and negative eugenics and euthenics.

Science 442 *Community Hygiene*

2 Cr.

Disease prevention through education, sanitation, isolation, and immunization. Public health programs and operation of federal and state laws.

Science 450 *Ecology*

(2-2) 3 Cr.

Prerequisites: Sc. 314 and Sc. 316

Interrelationships of organisms with their physical and biotic environment.

Science 399, 499 *Independent Studies*

1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairmen, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

CHEMISTRY

Blake, Clausen, Nitz, Owen, Puhl

A minor in chemistry consists of 22 semester hours. Required courses are Sc. 115, Sc. 116, and Sc. 208. Additional chemistry courses will be selected.

Science 115 *Inorganic Chemistry*

(2-6) 5 Cr.

The basic principles of inorganic chemistry; the important elements and compounds and their major applications to modern life.

Science 115 (Honors) *Inorganic Chemistry*

(2-6) 5 Cr.

Prerequisite: Demonstrated competence in academic work.

Principles of inorganic chemistry and the properties of important elements and compounds. Approach is more rigorous and coverage more extensive than in Sc. 115.

Science 116 *Inorganic Chemistry*

(2-4) 4 Cr.

Prerequisite: Sc. 115

A continuation of Sc. 115. Detailed study of the elements, based upon the

periodic table, includes chemical and physical properties, source and preparation, common compounds, industrial processes, and economic usage.

Science 208 *Organic Chemistry* (2-4) 4 Cr.

Prerequisite: Sc. 115

An introduction to the chemistry of carbon compounds with emphasis on the characteristic reactions of the several functional groups. Aliphatic and aromatic compounds are studied concurrently.

Science 322 *Biochemistry* (1-4) 3 Cr.

Prerequisites: Sc. 208 and Sc. 214

Digestion and metabolism of carbohydrates, fats, and proteins. Analysis of blood, urine, and other body fluids and tissues; nutritional significance of minerals, vitamins, enzymes, and hormones.

Science 436 *Qualitative Analysis* (1-4) 3 Cr.

Prerequisite: Sc. 115

The principles of equilibrium and solution chemistry, based on the laboratory procedures of separating and identifying some common cations and anions.

Science 438 *Quantitative Analysis* (1-4) 3 Cr.

Prerequisite: Sc. 115

Introduction to the principles of quantitative chemical analysis and training in precision laboratory techniques.

Science 445 *Chemistry of Materials* (2-2) 3 Cr.

Prerequisite: Sc. 115

Composition properties, and uses of common industrial and engineering materials: fuels and lubricants, iron and steel, non-ferrous metals and alloys, cement, paint and varnishes, synthetic rubber, and plastic.

Science 446 *Metallurgy* (2-2) 3 Cr.

Prerequisite: Sc. 115

Properties of crystalline solids, production of iron and steel, the carbon-iron equilibrium diagram, principles of heat treatment, properties of ferrous alloys. Production, properties, and theory of the most important non-ferrous metals and alloys.

Science 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

PHYSICS

Harbour, Kubly, Rue

A minor in physics consists of 22 semester hours. Required courses are Sc. 421, Sc. 423, Sc. 427, and Sc. 429. Additional physics courses will be selected; I.E. 439 Applied Electronics may be included.

Science 421 *Physics—Electricity, Heat, Mechanics* (3-4) 5 Cr.

Prerequisite: M. 213 or M. 250b

General laws of physics in the fields of electricity, mechanics, and heat. Laboratory problems and demonstrations.

Science 423 *Physics—Sound, Light* (2-2) 3 Cr.

Prerequisite: M. 213 or M. 250b

General laws of physics in the fields of sound and light. Acoustics, vision, lighting standards, lenses, optical instruments, polarization, and fluorescence.

Science 425 *Physics—Strength of Materials* (2-2) 3 Cr.

Prerequisite: M. 213 or M. 250b

Fundamental theory of strength of materials. Analysis of tension, compression, shear, biaxial tension and compression, torsion, stresses and deflection of beams, statically indeterminate beams, and theory of columns.

Science 427 *Physics—Electronics* Qr. (3-2) 2 Cr.

Prerequisite: Sc. 421

Theory and application of semi-conductors, vacuum and gas tubes. Basic principles of electronic circuits.

Science 429 *Physics—Modern Physics* 3 Cr.

Prerequisites: Sc. 421 and Sc. 423

Elements of atomic and nuclear physics and the industrial application of atomic energy.

Science 431 *Physics—Mechanics I* (2-2) 3 Cr.

Essential elements of statics including simple force systems, theory and application of non-concurrent forces, couples, friction, non-coplanar forces, trusses, and other structures.

Science 433 *Physics—Mechanics II* (2-2) 3 Cr.

Essential elements of dynamics including rectilinear, angular, and harmonic motions; forces producing motion, work, energy, acceleration, impulse and momentum.

Science 435 *Physics—Optics* (1-4) 3 Cr.

Prerequisite: Sc. 423

Geometrical and physical optics. Optical instruments, spectrum analysis, diffraction, interference, polarization and lasers.

Science 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

SOCIAL SCIENCE

ECONOMICS

Liu, Tokle

Social Science 201 *General Economics* 3 Cr.

An introduction to the principles of economics analyzing economic institutions, issues, and policy. Emphasis on aggregative economics, allocation of resources, and determination of income through the price system.

Social Science 207 *Money and Banking* 3 Cr.

Prerequisite: S.S. 201

Nature of current banking system, modern monetary theories, functions of the Federal Reserve System and mechanics of balance of payments. Emphasis on the economic aspects of monetary policy rather than institutional descriptions.

Social Science 414 *Labor Problems* 2 Cr.

Background and history of organized labor chiefly in Western industrial societies. Collective bargaining as viewed by labor, management, government, and the public. Combines basic labor economics with the study of the institutions involved in modern labor relations.

Social Science 450 *Managerial Economics* 3 Cr.

Prerequisite: S.S. 201

Analysis of decision making in the enterprise. Demand and cost analysis. Competitive and non-competitive price systems, marketing problems, capital budgeting, and criteria for investment decisions.

Social Science 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

I.E. 520 Labor and Industrial Relations is restricted to graduate students. See the *Graduate Studies Bulletin* for course description.

HISTORY

Agnew, Magnussen, Melrose

A minor in history consists of 22 semester hours. Required courses are S.S. 101a and b, S.S. 202a and b, and S.S. 410. Additional history courses will be selected.

Social Science 101a *United States History* 3 Cr.

American history to 1865. Political, economic, and social forces which have shaped the nation to the close of the Civil War. Not available to students who have completed S.S. 407.

Social Science 101b *United States History* 3 Cr.

Continuation of S.S. 101a. Not available to students who have completed S.S. 407.

Social Science 202a *Western Civilization* 3 Cr.

Survey of Western civilization along the Nile, the Fertile Crescent, through Greece, Rome, the Middle Ages, the Renaissance, and the Reformation.

Social Science 202b *Western Civilization* 3 Cr.

A survey of Western civilization from the Reformation to the present.

Social Science 301 *Economic History of the United States* 3 Cr.

Prerequisite: S.S. 201

Economic evolution of the United States since colonial times. Development of economic problems and the foundations of modern industry.

Social Science 405 *Biography of World Leaders* 2 Cr.

Readings in the biographies and autobiographies of American, European, and modern world leaders.

Social Science 407 *History of America* 3 Cr.

Survey of the United States. Not open to those taking the 22-credit minor, nor to those who have completed S.S. 101a or 101b.

Social Science 409 *Recent History of the United States* 2 Cr.

American history in the twentieth century. Study of recent world development in which the United States has played a part.

Social Science 410 *Modern World* 3 Cr.

Modern trends in terms of historical backgrounds, providing a frame of reference for interpreting the contemporary world. United Nations.

Social Science 418 *History of Modern Russia* 2 Cr.

Survey of significant developments in Russia since 1815.

Social Science 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

POLITICAL SCIENCE

Melrose, Price, Sabol

Social Science 311 *Government* 3 Cr.

Functional study of American governmental units. Political principles, processes, problems, and emphasis on constitutional principles; comparative study of selected major foreign governments.

Social Science 417 *American Politics* 3 Cr.

Prerequisite: S.S. 311

Analysis of modern political parties. Nominating methods, campaigns, elections, practical politics in legislative bodies, and machines and bosses.

Social Science 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

SOCIOLOGY

Deininger, Oldenburg, Olson

A minor in sociology consists of 22 semester hours. Required courses are S.S. 309, S.S. 411, and S.S. 420. Additional sociology courses will be selected.

Social Science 309 *General Sociology* 3 Cr.

An introduction to the study of human interaction in social groups and the relationships between the individual and the group; a framework for viewing patterns of social behavior.

Social Science 350 *Social Psychology* 2 Cr.

Prerequisite: S.S. 309

Study of the dynamics of social interaction, the development of the self, and the various processes of social life.

Social Science 411 *Problems of American Society* 2 Cr.

Prerequisite: S.S. 309

Application of the understandings of sociology to selected social problems. Social expectations and values related to actual behavior. Problems of individuals, groups, and societies.

Social Science 420 *Cultural Anthropology* 3 Cr.

Survey of the field of anthropology emphasizing varieties of culture and cultural behavior; the processes of cultural diffusion and change.

Social Science 430 *Sociology of the Community* 3 Cr.

Prerequisite: S.S. 309

Influences of geography, population characteristics, economy, political

structure, and culture on communities; community development and planning.

Social Science 440 *Sociology of Work* 3 Cr.
Prerequisite: S.S. 309

Study of human behavior in various types of employment and occupations; basic trends in the occupational structure of American society.

Social Science 455 *Sociological Theory* 3 Cr.

Prerequisites: S.S. 309 and six additional credits in Sociology
Contributions of major social theorists; chief components of contemporary general sociological theory.

Social Science 460 *Juvenile Delinquency* 3 Cr.

Prerequisite: S.S. 309
Definitions and trends of deviant behavior among youth; research findings; efforts toward prevention, control, and treatment.

Social Science 475 *Sociology of Minority Groups* 3 Cr.

Prerequisite: S.S. 309
Social-psychological aspects of the interaction between majority and minority groups; trends of minorities in the United States.

Social Science 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

SPEECH

Cutnaw, Falkofske, Lengfeld, Rence, Stewart, Ziemann

A minor in speech consists of 22 semester hours. Required courses are Sp. 106 and 223. Additional speech courses will be selected. One course in English, either E. 216, E. 348, E. 400a, or E. 400b, may be included.

Speech 100 *Speech Improvement* 0 Cr.

Individual and group assistance in attaining speech proficiency for those entering the teacher education program and for others with speech problems. Length of course varies with individual progress.

Speech 101a, b, c, d *Forensics* 1 Cr. per year

Training in speech through participation in intercollegiate forensics, including oral interpretation, oratory, extempore speaking, after-dinner speaking, debate, discussion, and preparation of speech programs.

Speech 106 *Fundamentals of Speech* 2 Cr.

Techniques of effective speech based upon diagnosis of individual needs and training for the improvement of the necessary skills. Emphasis

on speaker-listener relations, speech organization, voice, bodily action, language, and the development of confidence and poise.

Speech 110 *Speech for International Students* 2 Cr.

Practical experience in communicating in various situations. Individual and group attention to speaking and listening through the use of phonetics and tape recordings.

Speech 223 *Essentials of Public Speaking* 2 Cr.

Prerequisite: Sp. 106

Advanced techniques of speaking. Development of proficiency in audience analysis, speech composition, and delivery of various types of speeches.

Speech 320 *Advanced Speech Activities* 2 Cr.

Prerequisite: Sp. 106

Individual and group activities for developing skill in a variety of speech situations. Projects in analysis and delivery of literature. Special consideration of individual problems.

Speech 322 *Techniques of Group Leadership* 2 Cr.

Prerequisite: Sp. 106

Techniques for presiding at various meetings through use of parliamentary law. Training in the art of persuasion as a means of motivating and guiding the behavior of others.

Speech 325 *Discussion and Debate* 2 Cr.

Prerequisite: Sp. 106

A study of two basic democratic tools. Principles and methods of leading and participating in the symposium, panel, roundtable, and other types of discussion. Practice in debate techniques.

Speech 340 *Contemporary Theatre* 2 Cr.

Prerequisite: Sp. 106

Selected plays including structure, dramatic content, and production methods. Field trips to current plays.

Speech 344a *Theatre Workshop* 1 Cr.

Prerequisite: Sp. 106

Practical training in directing, acting, and/or stagecraft through actual participation in the production of college plays.

Speech 344b *Theatre Workshop* 1 Cr.

Prerequisite: Sp. 344a

A continuation of Sp. 344a. Further training in some phases of play production through practical participation in the college plays.

Speech 405 *Speech Skills for Business and Industry* 2 Cr.

Training in technical speaking; projects emphasizing the application of speech skills and activities in business and industry.

Speech 406 *Speech Skills for Educational Leadership* 2 Cr.

Prerequisite: Sp. 106

Leadership techniques and communication skills for use in the classroom and educational activities; an approach to leadership attitudes and skills of democratic leadership in directing and participating in educational activities and classroom teaching.

Speech 444 *Play Production* 2 Cr.

Prerequisite: Sp. 106

Survey of the art of play production: study of historical backgrounds, styles of production, and acting and directing techniques.

Speech 445 *Stagecraft and Scene Design* 2 Cr.

Prerequisite: Sp. 106

Technical problems in producing plays: techniques in designing the set; constructing, painting, and handling scenery; stage lighting; make-up; costuming; sound and visual effects; and organization of the production staff.

Speech 450 *Introduction to Speech Correction* 2 Cr.

Prerequisite: Sp. 106

The nature, causes, and methods of correcting voice and articulation defects.

Speech 470 *Radio and Television Workshop* 2 Cr.

Prerequisite: Sp. 106

Radio and television station procedures; techniques and methods in planning, directing, and producing programs; participation in actual broadcasts.

Speech 475 *Direction of Speech Activities* 2 Cr.

Prerequisite: Sp. 106

Organization, training procedures, and judging of speech activities such as the one-act play, original and non-original oratory, extempore speaking and reading, declamation, four-minute speech, and debate.

Speech 399, 499 *Independent Studies* 1 or 2 Cr.

Qualified students are admitted by special approval of the program adviser, the department chairman, the dean, and the instructor who will direct the study. Three typewritten copies of a well written report must be filed before credit is given. A maximum total of twelve credits.

APPENDIX A

WISCONSIN STATE DEPARTMENT OF PUBLIC INSTRUCTION

CERTIFICATION REQUIREMENTS TO TEACH VOCATIONAL TRADE
AND INDUSTRY COURSES AT THE HIGH SCHOOL LEVEL

1. Vocational "A" License (Multiple Skill Occupations)
 - a. Meet all regular and special certification requirements for a license to teach subjects in industrial arts or trades as prescribed by the Department of Public Instruction.
 - b. Complete a recognized college course which teaches the principles of vocational education and relates it to the total education program, including the comprehensive high school.
 - c. Have at least three years of appropriate occupational (work) experience related to the subject field. (Credit for up to two-thirds of this requirement may be granted for experiences providing occupational knowledge and insights as may be gained through special programs and for special, advanced course work beyond the basic requirements of the teaching area involved.)
2. Vocational "B" License (Single Skill Occupations and Pre-Technical Programs)
 - a. Meet all regular and special certification requirements for a license to teach subjects in industrial arts or trades as prescribed by the Department of Public Instruction.
 - b. Complete a recognized college course which teaches the principles of vocational education and relates it to the total education program, including the comprehensive high school.
 - c. Have at least one year of appropriate occupational (work) experience related to the subject field. (Credit for up to one-half of this requirement may be granted for experiences providing occupational knowledge and insights as may be gained through special programs and for special, advanced course work beyond the basic requirements of the teaching area involved.)

APPENDIX B

BOARD OF VOCATIONAL AND ADULT EDUCATION

REQUIREMENTS FOR CERTIFICATION

A-V 1.01 CERTIFICATION

1. Application. This chapter applies to:
 - a. All directors, principals, supervisors, counselors, coordinators, teachers, assistant teachers, technical advisors and experts (herein referred to as teachers) employed by local boards of vocational and adult education.
 - b. All teachers who have their initial employment in Wisconsin schools of vocational and adult education after July 1, 1963. Teachers employed before the above date may elect to comply with the regulations as set forth herein, or with the regulations as set forth in Teacher Training Bulletin #300 revised March 3, 1953, abridged 1956.
2. Determination of status. Certificates will be granted based upon teacher training forms and transcripts as submitted to the State Board of Vocational and Adult Education.
3. Issuance of certificate. Upon request of the local director, credentials of status will be issued by the State Director to such teachers as qualify under the regulations set forth herein.
4. Appeal.
 - a. Should any teacher feel that the status granted is not commensurate with the record submitted, appeal may be made to the state director of vocational and adult education for a review of the case by a committee on credentials. Such committee to be appointed at the time of the appeal by the state director of vocational and adult education; to be composed of a professional member of the staff of the State Board of Vocational and Adult Education, a local director, and three members who hold certified positions comparable to the person making the appeal.
 - b. Meetings of the committee will be called by the state director of vocational and adult education.
5. General provisions.
 - a. Equivalency for the requirements may be established through examination by the state board of vocational and adult education or an agency appointed by the board. Any expenses incurred are to be the responsibility of the individual teachers or local board of vocational and adult education.
 - b. Education and work experience may be substituted for each

other as indicated. Where substitution of work experience and/or education are made, an evaluation will be made by the state board of vocational and adult education. Such substitution may include special study through armed service schools, manufacturers' schools, correspondence courses, special tutoring and institutes, approved in-service teacher training programs, successful teaching experiences, work experience in clearly related occupations, and such other experiences as may be approved by the State Board of Vocational and Adult Education.

- c. All education and work experience requirements are to be within a ten year period from the date of application for certification. If more than ten years have elapsed, teachers will be required to gain appropriate refresher courses at the rate of 2 credits for each year which has elapsed beyond ten years or six months work experience for each year which has elapsed beyond ten years.
- d. Teachers should demonstrate that in speech, character, personality and health, they are fit to teach the subjects named in the credentials.

A-V 1.02 TYPES OF CERTIFICATES

- 1. Approval. Required of all teachers who teach under 450 hours during any school year. Teachers will be considered approved upon submitting appropriate teacher training forms, unless their director(s) is notified in writing within 30 days by the State Board of Vocational and Adult Education that they are not approved.
- 2. Provisional certificate. Conditions: Shall be valid to the nearest August 31 date which will give a full two-year period. It will be renewable upon demonstration by the teacher of having satisfactorily completed the work required by the State Board for progress toward the Standard State Certification (a maximum of 6 credits or 4 months work experience, or a combination of these, will be required in any two-year period). This certificate is required of all teachers who teach 450 hours or more in any one school year. The certificate period may be extended where extenuating circumstances make it impractical for an individual to fulfill the requirements. Such extension must be requested at least three months prior to the date of expiration.
- 3. Standard state certificate.
 - a. Shall be valid for life upon satisfactory completion of the requirements.
 - b. The certificate can be revoked by action of the State Board of

Vocational and Adult Education after a hearing in which incompetence to teach is clearly indicated.

A-V 1.03 REQUIREMENTS FOR APPROVAL Individual qualifications are subject to re-evaluation every year.

1. Educational and occupational experience shall be appropriate to the subject being taught as evaluated by the State Board of Vocational and Adult Education staff.
2. Driver education teachers hold valid Wisconsin teacher licenses and valid Wisconsin driver's license, have completed 6 semester hours of approved credits in the field of driver and safety education in an accredited teacher education college. Three semester hours shall be in driver education including behind-the-wheel instruction practice, and have demonstrated a satisfactory driving experience for two years prior to employment.

A-V 1.04 REQUIREMENTS FOR PROVISIONAL CERTIFICATE

1. Education. The following requirements must be fulfilled and the certified person must agree to work toward fulfilling the requirements for a Standard Certificate at the rate of 6 credits each two-year period or equivalent.
 - a. Teacher assistants; have completed two years of college, junior college, or technical institute, or be enrolled in a four-year teacher education program. Appropriate work experience, in addition to the work experience required, of a learning nature, may be substituted for a maximum of one-year equivalency.
 - b. Teachers, teacher coordinators, and part-time directors; have completed, a Bachelor's Degree with appropriate major or minor. Appropriate work experience, in addition to the work experience requirement, of a learning nature, may be substituted by teachers of skilled subjects.
 - c. Supervisors, coordinators, counselors, master teachers, department heads; a Bachelor's Degree in appropriate field.
 - d. Directors; a Master's Degree in appropriate field.
2. Occupational experience. The following requirements must be fulfilled and the certified person must agree to work toward meeting the work experience requirements for the Standard Certificate at the rate of 4 months experience each two years, or equivalent.
 - a. Teacher assistants; have completed one year of work experience in appropriate subject field.
 - b. Teachers, teacher-coordinator; have had appropriate successful work experience as follows: Appropriate education, beyond that

required, may be substituted for no more than two-thirds of the work experience requirement.

- (1) General subjects teachers; 3 months.
 - (2) Part-time directors, homemaking, business education, and related subjects teachers; 6 months.
 - (3) Trade and industrial, distributive teachers; 1½ years.
 - (4) Technical teachers; 6 months in area of teaching.
- c. Directors, supervisors, coordinators, counselors, department heads, and master teachers; appropriate education beyond that required may be substituted for no more than two-thirds of the work experience.
- (1) Appropriate successful work experience as follows:
 - (a) Supervisors, master teachers and department heads; 6 months.
 - (b) Coordinators and counselors; 1½ years.
 - (c) Directors; 3 years.
 - (2) Teaching Experience—Directors, supervisors, coordinators, counselors, department heads, master teachers; 3 years of teaching experience.

A-V 1.05 REQUIREMENTS FOR STANDARD CERTIFICATE

1. Education. The following must be obtained in addition to the requirements for the Provisional Certificate:
 - a. Teacher assistants; have completed courses or equivalent in:
 - (1) Class management and class accounting (2 credits).
 - (2) Methods and materials of teaching (2 credits).
 - (3) History and objectives of vocational and adult education and its relationship to the total educational program (2 credits).
 - b. Teachers, teacher-coordinators, and part-time directors have completed courses or equivalent in:
 - (1) Knowledge of history and objectives of vocational adult education, and its relationship to the total educational program (2 credits).
 - (2) Knowledge of the development, growth and learning processes of the individuals to be taught (3 credits).
 - (3) Knowledge of methods and techniques of teaching and development of course material (3 credits).
 - (4) Supervised teaching experience (4 credits or equivalent).
 - (5) Teacher-coordinator to have training in and knowledge of special methods and problems of coordination (4 credits).

- c. Directors, supervisors, coordinators, counselors, department heads and master teachers; have completed courses or equivalent in the following:
 - (1) Demonstrate the same competence as teachers.
 - (2) Demonstrate knowledge of special methods and problems relative to the position (4 credits).
 - (3) Coordinators, counselors, and master teachers to obtain a Master's Degree.
 - (4) Supervisors, department heads to obtain 30 credits or the equivalent beyond the Bachelor's Degree.
2. Occupational experience. Teacher assistants, teachers and teacher coordinators, part-time directors, supervisors, coordinators, counselors, department heads and master teachers; twice as much occupational experience as required for Provisional Certificate. (See a—b A-V 1.04 2.).
3. Teaching experience.
 - a. Teacher assistants, teachers, teacher-coordinators, part-time directors, directors, supervisors, counselors, department heads and master teachers; complete three years of satisfactory teaching.
 - b. Directors, supervisors, counselors, coordinators, and department heads; complete three years successful experience in position for which certified.

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